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FEBRUARY 1960

Volume 29 Number 2

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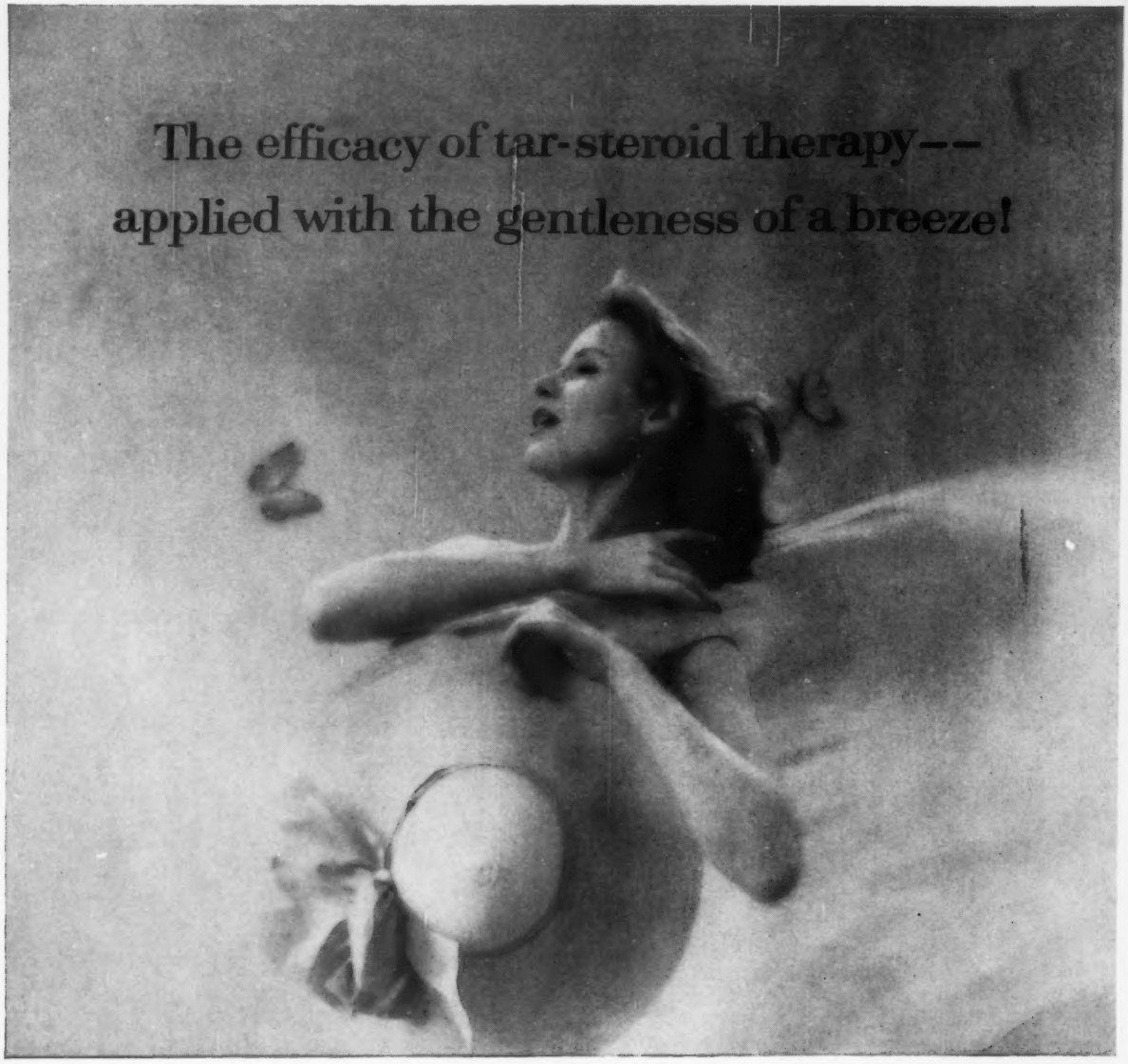

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References: 1. Bleiberg, J.: J. M. Soc. New Jersey *53*:371, 1956. 2. Clyman, S. G.: Postgrad Med. *21*:309, 1957. 3. Welsh, A. L. and Ede, M.: Ohio State M. J. *50*:837, 1954. 4. Abrams, B. P. and Shaw, C.: Clin. Med. *3*:839, 1956. 5. Welsh, A. L. and Ede, M.: J.A.M.A. *166*:158, 1958. 6. Welsh, A. L. and Ede, M.: Ohio State M. J. *55*:805, 1959. 7. Clyman, S. G.: Ind. Med. & Surg., *27*:531, 1958.

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PERSONAL NEWS AND NOTES

DAVID JOE SMITH, M.D., has been appointed Plant Medical Director for U. S. Steel's Edgar Thomson Works, Braddock, Pa., it was announced today by ROBERT B. O'CONNOR, M.D., Medical Director of U. S. Steel Corporation. DR. SMITH has been Medical Director for L. S. Ayres & Company, Indianapolis, Indiana, since 1953.

DR. SMITH was graduated from Indiana University Medical School in 1942 and interned at the Methodist Hospital, Indianapolis. He served in the U. S. Army Medical Corps as an Infantry Division Collecting Company Commander in the European Theatre from 1943-1946.

Following military service, DR. SMITH completed three years' residency training in surgery at the Methodist Hospital, the last year as chief resident physician. During four years of private practice in surgery, he became associated with L. S. Ayres & Company as a part-time medical examiner before assuming full responsibility for their medical program in 1953.

DR. SMITH has been active in local civic organizations in Indianapolis. He is a member of county, state and American medical associations. He is a Fellow of the Industrial Medical Association and, until his present appointment, was the Industrial Medical Association counselor for the state of Indiana.

R. EMMET KELLY, M.D., Medical Director for Monsanto Chemical Company, St. Louis, has been appointed Chairman of the Medical Advisory Committee of the Manufacturing Chemists' Association.

The committee's advisory service includes the preparation of information on the toxicology of industrial chemicals, on medical treatment for exposure and essential first aid measures for publication in the Association's widely recognized chemical safety data sheet series.

DR. KELLY received his M.D. from St. Louis University in 1932. He was appointed Medical Director of Monsanto in 1936, serving until 1942 when he joined the U. S. Army. Discharged in 1946 with the rank of lieutenant colonel, he returned to Monsanto as Medical Director.

In addition to his industrial work DR. KELLY is senior instructor in internal medicine at St. Louis University, a member of the board of directors of the St. Louis Heart Association, member of the council of the American Therapeutic Society and is active in a number of other professional societies.

WILLIAM ALLEN HAMOR, Ph.D., Senior Director of Research, Mellon Institute, and Advisor to the Industrial Hygiene Foundation, retired December 31, 1959, after 45 years at the Institute and more than a half-century of distinguished service to science.

DR. HAMOR, in 1934, influenced the planning and establishment of the Foundation, now composed of 400 member companies and public agencies which has effected widespread improvement in industrial working conditions.

DR. HAMOR'S interest in industrial hygiene has been ascribed to his concern for "any activity which would lead to greater health, comfort, and safety for human beings." His strong, personal concern for IHF has been a dominant element in the Foundation's achievements.

An article on IHF in *Industrial Medicine and Surgery*, October 1953, stated: "If the Foundation seems to have attained maturity in a remarkably short period of time, much of the credit belongs to DR. WILLIAM A. HAMOR, Director of Research at Mellon Institute, who has been its Adviser from the beginning. A pioneer in the field of industrial hygiene, he has made unlimited contributions of his time, energy and experience to the progress of the Foundation. DR. HAMOR'S interest in all aspects of industrial health and of human resources began with studies in the early 1900's."

Early in his career, DR. HAMOR also did researches on the chemistry and toxicology of anesthetics, and later on smoke control, the latter contributing to a

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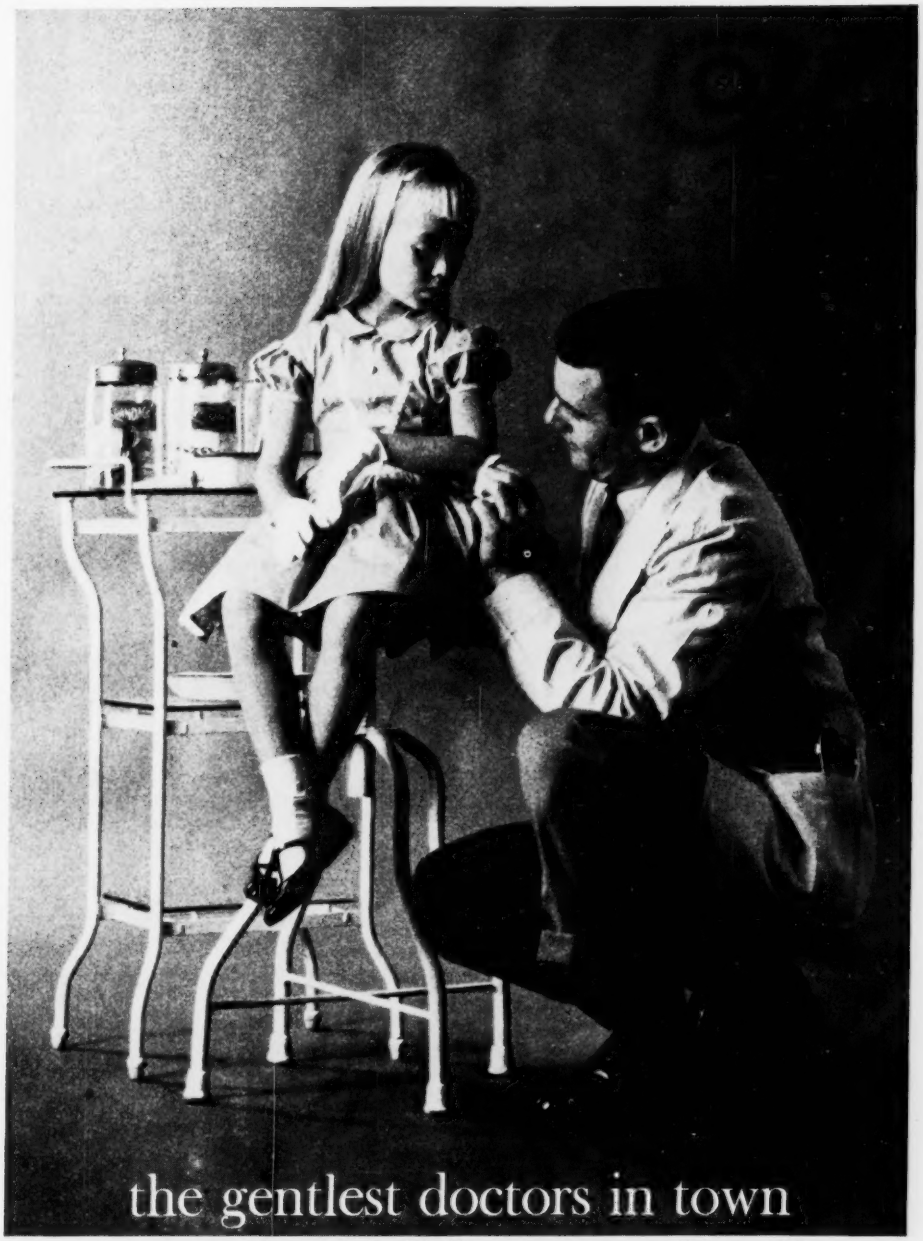

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better understanding of municipal chemistry. In 1945, he served as chairman of the Smoke Abatement Committee of the Allegheny Conference on Community Development. The Conference was largely responsible for the adoption of smoke control in the Pittsburgh district.

Since 1947, DR. HAMOR has been editor of the American Chemical Society's Chemical Monograph series, which reports on subjects in chemical science. Among other work for the Society, he served on the committee that established the Priestley Medal, and the committee that formed the petroleum division of the Society. At one time he wrote a column on industrial developments for the then *Journal of Industrial and Engineering Chemistry*, which carried the first industrial news to appear in any of the Society's journals. Later, for six years, he wrote annual reviews of industrial research development for *Chemical and Engineering News*.

CHARLES H. RUSHMORE, M.D., has been named Regional Medical Officer of the Pennsylvania Railroad's Buckeye Region.

DR. RUSHMORE succeeds IRVING BLACK, M.D., who has retired after 36 years in the railroad's medical department.

DR. RUSHMORE attended Keystone Junior College, Brown University and Alfred University prior to obtaining his medical degree at Temple University. After serving his internship in Moses Taylor Hospital, Scranton, and spending two years in service, DR. RUSHMORE was engaged in private practice in Elmhurst and Moscow, Pa., several years and for 10 years in the Stroudsburg, Pa., area before joining the railroad last February as Medical Officer at New York.

JOHN G. PIFER, M.D., has been appointed Medical Director of the East Pittsburgh Divisions of Westinghouse Electric Corporation succeeding FRANK E. GRAY, M.D., who has retired. Prior to his appointment as Medical Director, DR. PIFER served as Assistant Medical Director for the Westinghouse East Pittsburgh Divisions.

After graduating from Duquesne University in 1942, DR. PIFER received his M.D. degree from the University of Pittsburgh in April, 1948. From April, 1948, until April, 1949, he interned at the United States Naval Hospital in Philadelphia. In September, 1949, he joined the Westinghouse East Pittsburgh Medical Department and served in the capacity of staff physician until his appointment as Assistant Medical Director in 1957.

DR. PIFER is a member of the Industrial Medical Association of Pittsburgh and the Industrial Medical Association.

JOHN ALLEN, M.D., will become Chief Medical Consultant to the State of Wisconsin Public Welfare Programs. In this capacity he will correlate all medical programs between federal, state, and county programs, as well as rehabilitation and work-evaluation clinics.

DR. ALLEN has retired as Corporate Medical Director of Oscar Mayer and Co., after serving in that capacity for seven years.

He will continue as Lecturer in Occupational Medicine at the University of Wisconsin Medical School, as well as consultant to various managements on industrial relations problems.

JOHN F. COYNE, M.D., has been appointed Medical Director of the Sharon plant, Transformer Division, Westinghouse Electric Corporation. He was formerly Medical Director of the Janesville, Wisconsin, plants of the Fisher Body and Chevrolet Divisions of General Motors.

DR. COYNE received his M.D. degree from the University of Pittsburgh in June, 1949, and interned at Hurley Hospital, Flint, Michigan, from July, 1949, until July, 1950. From 1950 to 1952 he was on active duty as a U. S. Air Force Medical Officer and was stationed at F. E. Warren Air Force Base, Cheyenne, Wyoming. In 1952 he became engaged in the general practice of medicine as a member of the Fond du Lac Clinic, Fond du Lac, Wisconsin, continuing there until 1956 when he entered a full-time career in industrial medicine with GM at Janesville.

DR. COYNE is a member of the Central States Society of Industrial Medicine and Surgery and Industrial Medical Association.

FRANK A. PATTY, long the chief of the Industrial Hygiene section of General Motors Corporation, with its headquarters at the Technical Center near Detroit, has retired. MR. PATTY stands eminent because of his authorship of the standard text *Industrial Hygiene and Toxicology*, in process of appearing in its second edition. MR. PATTY will stay with General Motors as a consultant.

University of Toronto will present a Refresher Course in Industrial Medicine from March 7 to 11, 1960. The course will be under the direction of J. R BROWN, M.D., Professor of Physiological Medicine, with the staff of the school and a number of visiting lecturers. The curriculum will be concerned with recent developments in Industrial Medicine and the course has been designed to be of interest to the general practitioner engaged in part-time practice in industry as well as the full-time medical officer. The fee for the course will be $60.00 (Canadian Funds), but registration for part of the course can be arranged for at the rate of $15.00 (Canadian Funds) per day. The College of General Practice of Canada will allow study credits of 24 hours for the course.

Further details of the course may be obtained through the Division of Postgraduate Medical Education, Faculty of Medicine, University of Toronto, Toronto 5, Ontario.

New York University-Bellevue Medical Center Postgraduate Medical School, Department of Industrial Medicine offers two courses in radiological health starting March, 1960.

This program makes available to research institutions, industry and government, facilities for training technical people having responsibilities in the ex-

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panding field of radiological protection. The courses are intended for persons already trained in one of the physical, engineering, biological or medical sciences who require a comprehensive introduction to the new techniques and methods associated with radiological hazard evaluation. The courses are as follows:

Medical and Public Health Control of Ionizing Radiation: Full time, March 7-18, 1960. Primary emphasis is on the biological effects of radiation and medical control programs. Specifically designed for public health officials, physicians, and others with biological interests.

Radiation Hygiene Measurements: A four-week intensive course, April 18-May 13, 1960, offering laboratory instruction in surveying, monitoring and sampling procedures for persons having some acquaintance with nuclear measurement principles.

For further information: The Associate Dean, New York University Postgraduate Medical School, 550 First Avenue, New York 16, New York.

Menninger Foundation announces its fifth annual Seminar on Psychiatry and Occupational Medicine for Occupational Physicians, conducted in cooperation with the staffs of Topeka State and VA Hospitals, March 7-11, 1960, at Topeka, Kansas. This seminar is for occupational physicians who are concerned with the health maintenance of a major segment of a company. It is designed to further the development of a psychiatric frame of reference applicable to the daily practice of the occupational physician.

Objectives are to help the occupational physician further his understanding of psychological motivation, improve his skills in assessing the emotional aspects of medical problems, acquaint himself with techniques of brief psychotherapy, and enlarge his knowledge of psychiatric treatment methods and criteria for referral.

The seminar will consist of three major units: Psychodynamics or Basic Theory of Psychological Motivation, Principles of Psychiatric Examination, and Psychiatric Treatment.

Two full days will be devoted to Psychodynamics. This will include discussion of conscious and unconscious motivation, constructive and destructive personality trends, personality mechanisms, and the work environment. Three half-day sessions will be devoted to Principles of Psychiatric Examination, the subtopics of which will be psychological aspects of the initial examination, and psychiatric case study, with case demonstrations. An additional three sessions will be devoted to Psychiatric Treatment. Somatic treatment methods, principles of psychotherapy, and brief psychotherapy will comprise the individual sessions. In addition, there will be lectures on psychological, psychiatric and neurological topics of special interest to occupational physicians.

Each lecture will be followed by a question period and a demonstration or discussion period.

Each physician also will be assigned to a small discussion group which will meet daily throughout the week.

Died

CHRISTOPHER C. SHAW, 58, Captain, U. S. Navy, Medical Officer of the Philadelphia Naval Base and Shipyard, on December 5, 1959, at the U. S. Naval Hospital.

A 1931 graduate of the University of Maryland Medical School, he was called to active duty in the Navy in 1941 and served as a flight surgeon aboard the USS Solomons for two years during the Second World War battle of the Atlantic.

CAPTAIN SHAW held several Navy posts, including that of Director of the Research Division of the Bureau of Medicine and Surgery.

He was an Associate in Medicine on the faulties of the University of Pennsylvania Medical School and Hahnemann Medical College. He was a member of the American Medical Association, the American Association for the Advancement of Science and the American Academy of Occupational Medicine.

RIAL RICHARDSON OGLEVIE, M.D., 62, of Kansas City, Mo. DR. OGLEVIE, who specialized in industrial medicine and surgery, was stricken at the Westinghouse Electric Corporation plant, while on his daily visit to the plant where he was Medical Director.

DR. OGLEVIE practiced industrial medicine and surgery in Greater Kansas City more than 34 years.

In 1957 he and an associate, REX L. DIVELEY, M.D., presented a paper on low back examinations for industrial pre-employment. The paper was read before the Pan-Pacific Medical Association in Honolulu. DR. DIVELEY said that he and Dr. Oglevie completed the paper after eight years of examining more than 10,000 employees for the Westinghouse Company. DR. DIVELEY said the examination study aided them in determining whether job applicants were physically able to do lifting and regular employment duties.

DR. OGLEVIE had been a member of the Jackson County Medical Society since 1925. He held memberships also in the Chamber of Commerce, the Missouri Medical Association and the American Medical Association.

He saw service with the Army in World War I. In 1921 he received his Bachelor of Arts degree from the University of Kansas and in 1923 his M.D. from the same university. He interned at General Hospital and in 1924 began his general practice in Kansas City. He was a member of the medical staffs of St. Luke's and Queen of the World Hospitals.

CORNELIUS E. HEALY, M.D., 60, of Cincinnati, Ohio. He was found dead in his auto in the garage of his home. A garden hose was attached from the auto's exhaust pipe into the auto. The motor on the car had stopped and the gas tank was empty.

A note to his wife said he was despondent over ill health which had cost him his job of Examining Phvsician with the Baltimore and Ohio Railroad.

DR. HEALY, a native of Chicago, came to Cincinnati in 1951 as Chief Medical Examiner for the railroad. He was a graduate of the University of Illinois.

Preferably, antibiotic therapy should be based on pretreatment culture of the offending pathogen, but in bacterial pneumonia the problem may well be too pressing to permit the required delay of 24 to 48 hours. A differential diagnosis among bacterial pneumonias, based on such clinical grounds as speed of onset, sepsis and pain may guide the choice of antibiotic for initiation of therapy.

Should clinical judgment dictate that antibiotic therapy be started immediately, at the same time a sputum sample or a subglottic swab can be sent to the laboratory for culture and sensitivity studies. If the response to the first antimicrobial agent proves unsatisfactory, a reasonable basis for changing therapy will then be at hand.

Choosing the Antibiotic

Since therapy must be started at once for bacterial pneumonia, it is advisable to choose a broad-spectrum antibiotic that quickly produces high levels of active agent (e.g., tetracycline phosphate complex, TETREX). Such an antibiotic probably has the best chance of controlling the pathogen, whether it be gram-negative or gram-positive. And if the laboratory report shows that the invading organism is much less sensitive to tetracycline than to other agents, the patient can then be changed to an appropriate antibiotic. If the difference in sensitivity is slight, then the possibility of side effects, sensitization, and toxicity should be evaluated before changing therapy to another antibiotic.

The greatest number of bacterial pneumonias are caused by pneumococci, which respond very well to penicillin, tetracycline, and chloramphenicol. Also, these antibiotics are usually effective against the other gram-positive coccal pneumonias. But penicillin is ineffective against the viral pneumonias and the gram-negative *Hemophilus influenzae* and *Klebsiella pneumoniae*. Although *K. pneumoniae* causes only about 1 to 2 per cent of pneumonia cases on the average,[1] these are apt to be acute and fulminating (Friedländer's pneumonia), with a high mortality rate if not effectively treated. Since pneumococcal pneumonia may be difficult to distinguish clinically from Friedländer's, except by gram-stained sputum smear, it may be wiser to start treatment with an agent also effective against Klebsiella.

Penicillin, however, in addition to having a limited spectrum, also causes many minor and some serious sensitivity reactions. In a recent survey[2] it was found that penicillin produced severe skin reactions. But most important was the observation that anaphylactic shock, with a fatality rate of about 9 per cent, was the most frequent serious reaction. Such severe reactions are almost always associated with parenteral administration.

Tetracycline is also clinically effective in primary atypical pneumonia.[3]

The tetracyclines (e.g., TETREX) have the advantages of a broad range of antimicrobial activity and low toxicity. And in addition, the physician does not have to trouble himself or his patients with repeated blood studies when he prescribes TETREX. Minor reactions such as gastric upsets or mild skin rashes occur occasionally. The most serious side effects are staphylococcal and monilial overgrowth, but these are rare and can be adequately controlled.

No one would deny that appropriate antibiotic therapy has greatly reduced morbidity and saved many lives of patients with bacterial pneumonia. Nevertheless, general supportive measures in the care of patients remain important even today. Especially in the desperately ill patient, antibiotics are not considered as substitutes for the individual evaluation, clinical observation and judgment of the physician.

***Some Micro-organisms Susceptible*[a] *to Tetracycline* (TETREX)[b]**

Streptococcus; Staphylococcus; Pneumococcus; Gonococcus; Meningococcus; *C. diphtheriae; B. anthracis; E. coli;* Proteus; *A. aerogenes; Ps. aeruginosa; K. pneumoniae;* Shigella; Brucella; *P. tularensis; H. influenzae; T. pallidum;* Rickettsiae; Viruses of psittacosis and ornithosis, lymphogranuloma inguinale, primary atypical pneumonia; *E. histolytica; D. granulomatosis.*

[a] Some strains are not susceptible.

[b] Table adapted from Goodman, L. S., and Gilman, A.: The Pharmaceutical Basis of Therapeutics, 2nd edition, New York, The Macmillan Co., 1956, pp. 1322-1323.

References: 1. Wood, W. E., Jr.: In: A Textbook of Medicine. Edited by Cecil, R. L., and Loeb, R. F., 9th edition, Philadelphia, W. B. Saunders Co., 1955, p. 145. 2. Welch, H.; Lewis, C. H.; Weinstein, H. I., and Boeckman, B. B.: Severe reactions to antibiotics. A nationwide survey. Antibiotic Med. & Clin. Ther. 4:800 (Dec.) 1957. 3. Keefer, C. S.: The choice of an anti-infective agent. In: Drugs of Choice, 1958-1959. Edited by Walter Modell, St. Louis, The C. V. Mosby Co., 1958, p. 135.

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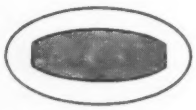	
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References: Annals of Allergy, Vol. 6. July-August 1948. Study of a New Histamine Antagonist, The Pennsylvania Med. J., Vol. 51. Clinical Study of a New Antihistaminic Drug—Phenindamine. Dristan Clinical Study.

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1. Stritzler, C.: Indust. Med. & Surg. 28:420, 1959.

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SYMPOSIUM REPORT:

ALTAFUR in antibiotic-resistant staphylococcal infections

ALTAFUR proved superior to any other single agent against staphylococcal infections encountered in the pediatric section of a general hospital. Introduced during an epidemic of severe staphylococcal pneumonia and bronchiolitis in younger children, ALTAFUR was employed in treating a total of 59 infants or juvenile patients, most of whom had upper or lower respiratory tract involvement. Almost all had been given antibiotics without effect; 34 were judged severely or critically ill. Cures were obtained in 54 of these patients after a 3 to 10 day course of ALTAFUR. There was only one failure (results were inconclusive in the remaining four cases). Mixed infections with Pneumococcus or Streptococcus sp. also responded readily.

ALTAFUR was administered orally in varying dosage: the optimal dose is believed to be about 22 mg./Kg. daily.

Side effects were minimal in these patients, being limited to gastric intolerance in a few cases, usually controllable by giving the drug with or after meals. Laboratory studies performed before and after ALTAFUR treatment revealed no adverse influence on renal, hepatic or hematopoietic function, nor other signs of toxicity.

In vitro, staphylococci isolated in this series proved uniformly susceptible to ALTAFUR, whereas many strains were resistant to a variety of antibotics. With ALTAFUR as with all nitrofurans, the lack of development of significant bacterial resistance is considered a major advantage over other antimicrobials.

Lysaught, J. N., and Cleaver, W.: Paper presented at the Symposium on Antibacterial Therapy, Michigan and Wayne County Academies of General Practice, Detroit, Sept. 12, 1959 (published Nov., 1959)

bright new star

in the antibacterial firmament

ALTAFUR™

brand of furaltadone

the first nitrofuran effective orally in systemic bacterial infections

- Antimicrobial range encompasses the majority of common infections seen in everyday office practice and in the hospital
- Decisive bactericidal action against staphylococci, streptococci, pneumococci, coliforms
- Sensitivity of staphylococci in vitro (including antibiotic-resistant strains) has approached 100%
- Development of significant bacterial resistance has not been encountered
- Low order of side effects
- Does not destroy normal intestinal flora nor encourage monilial overgrowth (little or no fecal excretion)

Tablets of 50 mg. (pediatric) and 250 mg. (adult)
Average adult dose: 250 mg. four times a day, with food or milk
Pediatric dosage: 22-25 mg./Kg. (10-11.5 mg./lb. body weight daily in 4 divided doses

CAUTION: The ingestion of alcohol in any form, medicinal or beverage, should be avoided during Altafur therapy.

NITROFURANS—a *unique* class of antimicrobials
EATON LABORATORIES, NORWICH, NEW YORK

KILLS THEM ALL

In Topical Infections, regardless of etiology, BETADINE OINTMENT destroys all pathogens present. BETADINE OINTMENT, a single topical agent, is a full-range pathogenicide—kills bacteria, fungi, protozoa, yeasts, and viruses on contact. Yet it is nonsensitizing, nonirritating, and nontoxic to normal skin tissue.

BETADINE OINTMENT • topical pathogenicide • fully effective against resistant strains • destroys gram-positive and gram-negative organisms • kills fungi, protozoa, yeasts, viruses • no development of resistant strains on prolonged use • provides protective barrier against invading pathogens • nonsensitizing . . . relieves pain • color indicates germicidal protection • applies easily . . . may be bandaged.

indications: primary and secondary skin infections including pyoderma, mycotic and bacterial infections, eczema, furunculosis, minor burns, as well as staph. aureus and pseudomonas infections.

administration: apply liberally over affected area as often as needed, bandage if desired.

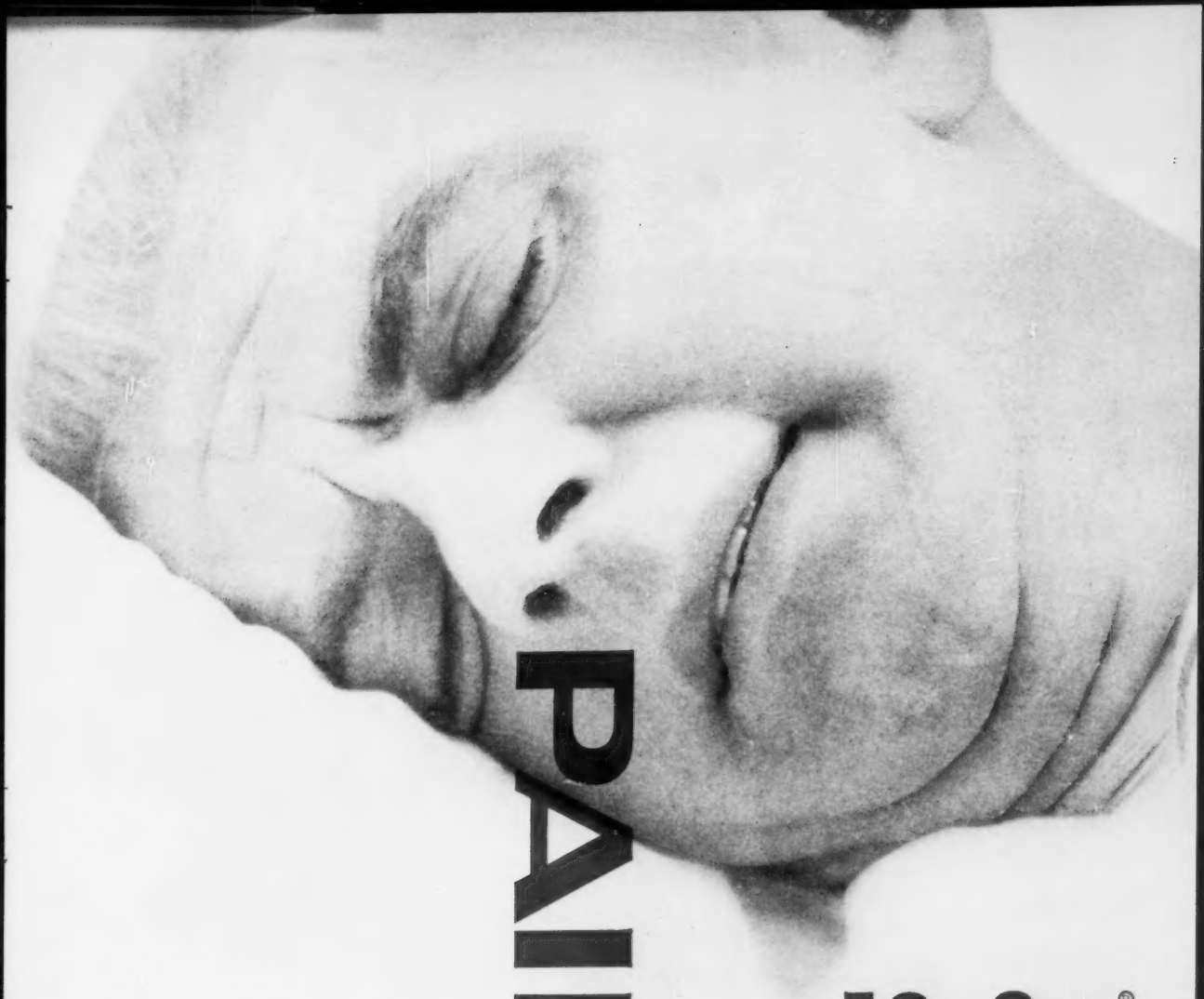
supplied: one ounce tube.

BETADINE™ OINTMENT

(CONTAINS POVIDONE-IODINE)

TOPICAL PATHOGENICIDE ... KILLS PATHOGENS ON CONTACT

established in 1905 TAILBY-NASON COMPANY, INC., DOVER, DELAWARE



PAIN

Zactirin®

Ethoheptazine Citrate (75 mg.) with Acetylsalicylic Acid (325 mg.), Wyeth

Relief for the pain problems of grippe

and other upper respiratory infections

Myalgia • Arthralgia • Pleurisy • Severe headache • Retro-orbital discomfort

Consider ZACTIRIN when effective analgesia is required to cope with stubborn pain symptoms of upper respiratory infections. ZACTIRIN aids these patients by both easing pain and combating inflammation. Non-narcotic and well tolerated, ZACTIRIN gives pain relief equivalent to that of codeine. *Supplied: Tablets, bottles of 48.*

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100 ANNIVERSARY Wyeth

A Century of Service to Medicine

which antibiotic has the plus?

Today you have a variety of useful antibiotics at your command. Which one should you choose?

Mysteclin-V — specific action plus added protection. Mysteclin-V is a combination of tetracycline phosphate complex — one of the world's most widely prescribed broad spectrum antibiotics — and Mycostatin, the first well-tolerated antifungal antibiotic. Together, in Mysteclin-V, these two components provide specific, effective antibiotic action plus added protection against fungal superinfections.[1-3]

When should Mysteclin-V be prescribed? Accumulated clinical experience clearly indicates that fungal superinfections are on the rise, particularly when broad spectrum antibiotics must be administered in high dosage or for extended periods, in the debilitated and diabetics, during pregnancy, and when corticosteroids are used concurrently. Under such conditions, more than a "broad spectrum" antibiotic is required. Mysteclin-V provides the answer.

Supplied: Capsules (250 mg./250,000 u.); Half-strength Capsules (125 mg./125,000 u.); Suspension (125 mg./125,000 u. per 5 cc.); Pediatric Drops (100 mg./100,000 u. per cc.).

References: 1. Cronk, G. A.; Naumann, D. E., and Casson, K.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 397. 2. Childs, A. J.: Brit. M. J. *1*:660 (Mar. 24) 1956. 3. Newcomer, V. D.; Wright, E. T., and Sternberg, T. R.: Antibiotics Annual 1954-1955, New York, Medical Encyclopedia, Inc., 1955, p. 686.

'MYSTECLIN'®, 'SUMYCIN'®, AND 'MYCOSTATIN'® ARE SQUIBB TRADEMARKS.

Mysteclin-V

SQUIBB TETRACYCLINE PHOSPHATE COMPLEX (SUMYCIN) AND NYSTATIN (MYCOSTATIN)

SQUIBB

Squibb Quality — the Priceless Ingredient

Data obtained from a series of 164 patients with acute muscular spasm and muscular spasm accompanying disc disease indicates "...that styramate (Sinaxar) favorably influences the course and severity of the illnesses studied."*

the "...CNS drug with more singular activity..."*

Dosage: Two tablets three or four times daily.

Supplied: 200 mg. tablets in bottles of 50.

Indications: Any condition involving skeletal muscle spasm, as **musculoskeletal disorders:** acute and chronic back ache, arthritides, bursitis, disc syndrome, fibrositis, myalgia, myositis, osteoarthritis, following orthopedic procedures, rheumatoid arthritis.

*Davis, O. F.; Levine, A. J.; Beck, C., and Horwitz, B.: Clin. Med. 6:1595-1599 (Sept.) 1959.

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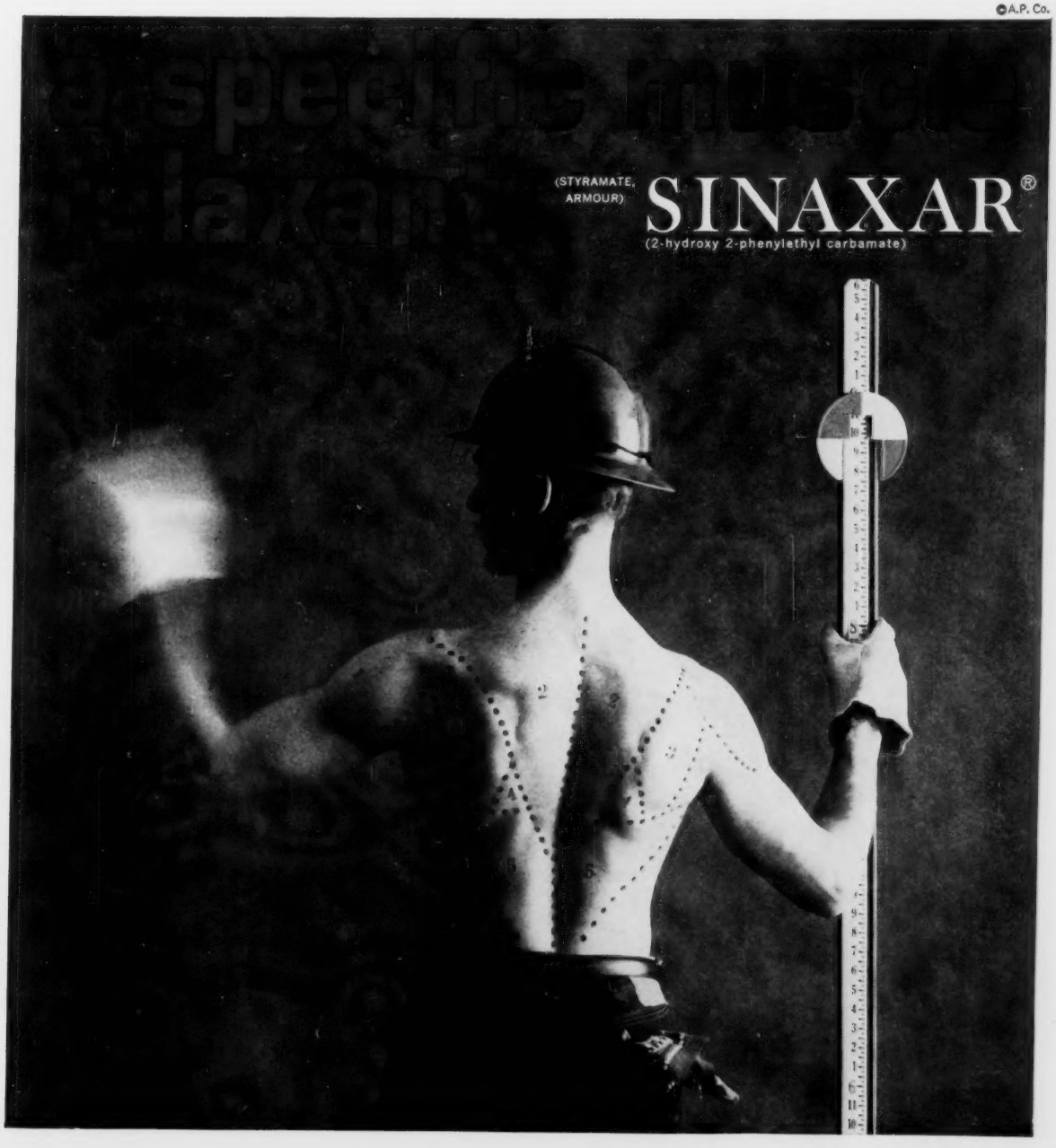

first in preference for relief from cough

quiets the cough and calms the patient

Expectorant
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Sedative
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EXPECTORANT

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with Codeine

Plain (without Codeine)

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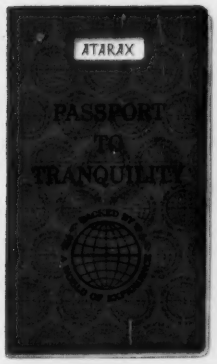

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(brand of hydroxyzine)

World-wide record of effectiveness—over 200 laboratory and clinical papers from 14 countries. **Widest latitude of safety and flexibility**—no serious adverse clinical reaction ever documented. **Chemically distinct among tranquilizers**—not a phenothiazine or a meprobamate. **Added frontiers of usefulness**—antihistaminic; mildly antiarrhythmic; does not stimulate gastric secretion.

Areas of Special Usefulness	Supportive Clinical Observation	...and for additional evidence
IN AMBULATORY NEUROTICS	"Since this drug does not impair psychic function ... it is especially well suited for ambulatory neurotics who must work, drive a car, or operate machinery." Ayd, F. J., Jr.: New York J. Med. **57**:1742 (May 15) 1957.	Garber, R. C., Jr.: J. Florida M. A. **45**:549 (Nov.) 1958. Menger, H. C.: New York J. Med. **58**:1684 (May 15) 1958.
IN PREMENSTRUAL TENSION	"The consensus appears to be that this agent has a definite calming effect on nervous and agitated subjects with symptoms such as ... premenstrual tension...." Shalowitz, M.: Geriatrics **11**:312 (July) 1956.	Schuller, E.: Gaz. des Hôpitaux **129**:391 (Apr. 10) 1957. Dolan, C. M.: California Med. **88**:443 (June) 1958.
IN ALCOHOLISM	Atarax "... is the tranquilizer of choice in the treatment of both acute and chronic stages, inpatient and outpatient, because of its safety, versatility, flexibility, and effectiveness." McGettigan, D. L.: In press.	Cohen, S.: Am. Pract. & Digest Treat. **8**:946 (June) 1957. Garber, R. C., Jr.: J. Florida M. A. **45**:549 (Nov.) 1958.

Dosage: One 25 mg. tablet or one tbsp. syrup q.i.d. For emotional emergencies, 25-50 mg. (1-12 cc.) I.M., 3-4 times daily q. 4 h. **Supplied:** Tiny 10 mg., 25 mg., and 100 mg. tablets. Syrup (10 mg. per tsp.), pint bottles. Parenteral Solution: 25 mg./cc. in 10 cc. multiple-dose vials; 50 mg./cc. in 2 cc. ampules. Prescription only.

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ORALLY EFFECTIVE THERAPY

OF DERMATOMYCOSES

GRiFULV

PENETRATES THE KERATIN BARRIER

FROM THE INSIDE

IN®

Griseofulvin

Since topical agents are unable to reach pathogenic fungi lodged deep in the keratin of the skin, hair or nails, a systemic therapy for superficial mycoses has been a long-sought therapeutic goal. GRIFULVIN dramatically achieves that goal.

Absorbed from the gastrointestinal tract, GRIFULVIN is deposited in the keratin of the skin, hair or nails in fungistatic amounts. Organisms are thus held in check while the keratin containing viable but inactive fungi is gradually exfoliated and replaced by noninfected tissue.

- Tinea corporis usually clears in 2 to 4 weeks; itching stops in 3 to 5 days.
- Tinea pedis improves in 1 to 2 weeks; complete clearing may require 3 to 6 weeks.
- Tinea capitis improves in 2 to 3 weeks; is usually cured in 3 to 5 weeks.
- Onychomycosis (tinea unguium) — fingernails clear in 3 to 4 months; new normal growth is seen earlier; toenails require longer treatment.
- Oral GRIFULVIN appears to have a very low level of toxicity.

Literature concerning method of administration and dosage is available upon request.

Supplied: 250 mg. scored tablets, colored aquamarine, imprinted McNEIL, bottles of 16 and 100.

McNEIL

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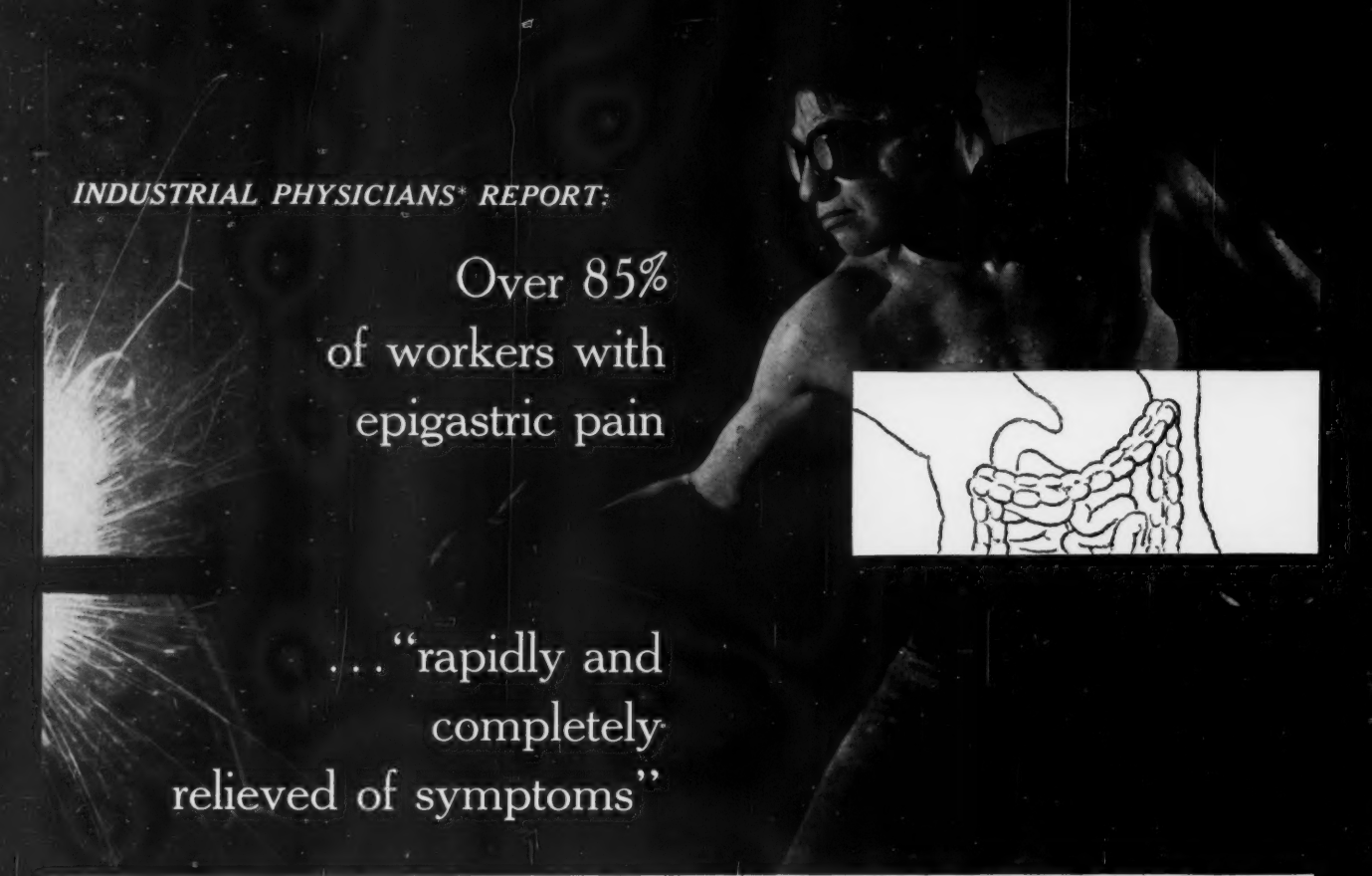

Noting that gastrointestinal symptoms were the chief complaints of more than half the workers reporting for treatment to their industrial clinic, Barden and co-workers* undertook an evaluation of Donnatal in providing rapid relief and minimizing absenteeism.

Based upon repeated clinical observation, case records, and progress reports over an eight-month period, the investigators conclude that Donnatal is "particularly effective for the relief of pain associated with smooth muscle spasm of the gastrointestinal tract." They observe also that:

"More than 85% of patients with epigastric pain and discomfort were rapidly and completely relieved of symptoms."

"... many employees were able to resume work within an hour."

"There was no evidence of undesirable side reactions."

DONNATAL® EXTENTABS** Robins

are particularly useful for industrial therapy, because once-a-day dosage provides effective spasmolysis for a twelve-hour period without the inconvenience of the customary four-hour dosage schedule. True *extended action* spasmolytic effects are provided by the special construction of Extentabs. Immediately after administration the equivalent of one Donnatal tablet is released, followed by the gradual and uniform release of the equivalent of two more Donnatal tablets, to provide sustained effects for 10 to 12 hours.

Each Donnatal tablet or capsule or each 5 cc. teaspoonful of Donnatal Elixir contains: hyoscyamine sulfate 0.1037 mg., atropine sulfate 0.0194 mg., hyoscine hydrobromide 0.0065 mg., phenobarbital (¼ gr.) 16.2 mg.—bottles of 100, 500, and 1000 tablets or capsules, and bottles of 1 pint and 1 gallon of elixir.

Donnatal No. 2 Tablets contain the same amounts of belladonna alkaloids with 32.4 mg. (½ gr.) phenobarbital per tablet—bottles of 100 and 500 tablets.

Donnatal Extentabs contain active ingredients equivalent to three regular Donnatal tablets—bottles of 100 and 500.

*Frank W. Barden, M.D., Paul S. Hill, M.D., William F. Mahoney, M.D., and Kenneth J. Cuneo, M.D., in a report from the Medical Department of the Saco-Lowell Shops and the Webber Memorial Hospital, Biddeford, Maine; published in the January, 1954 issue of the Journal of the Maine Medical Association (Vol. XXXXV, No. 1, Page 11).

**Trade Mark

DONNATAL® Robins

TABLETS • CAPSULES • ELIXIR • EXTENTABS**

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA • Ethical Pharmaceuticals of Merit since 1878

When you prescribe *Trancopal* your patients with LOW BACK PAIN can look forward to effective relief of painful muscle spasm and quick return to normal activity.

Professional model used for photograph

Increasing numbers of patients with low back pain and other musculospastic conditions, treated with Trancopal, have been freed of symptoms and enabled to return to their usual activities.

In a recent study by Lichtman,[1] Trancopal brought excellent to satisfactory muscle relaxation to 817 of 879 patients. The patients in this group suffered from skeletal muscle spasm associated with low back pain (361 cases), stiff neck (128 cases), bursitis (177 cases) and other skeletal muscle disorders (213 cases). Side effects were rare (2 per cent), and it was not necessary to discontinue medication in any of the patients. Mullin and Epifano[2] found that Trancopal brought good to excellent relief to all of 39 patients with skeletal muscle spasm. This pattern is similar in every new series reported: Ganz,[3] DeNyse,[4] Shanaphy,[5] and Stough.[6]

Trancopal for dysmenorrhea and tension — Trancopal is equally effective in bringing relief from menstrual cramps and discomfort and is very useful in treating patients in anxiety and tension states.

Indications: *Musculoskeletal disorders:* low back pain (lumbago) / neck pain (torticollis) / bursitis / rheumatoid arthritis / osteoarthritis / disc syndrome / fibrositis / ankle sprain and tennis elbow / myositis / postoperative muscle spasm. *Disorders with psychogenic components:* anxiety and tension states / dysmenorrhea / premenstrual tension / asthma / angina pectoris / alcoholism. **Dosage:** Adults, 100 or 200 mg. orally three or four times daily. Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

Now available in two strengths: **Trancopal Caplets®**
100 mg. (peach colored, scored), bottles of 100.
NEW STRENGTH — **200 mg.** (green colored, scored), bottles of 100.

References: 1. Lichtman, A. L.: Scientific Exhibit, meeting of the International College of Surgeons, Miami Beach, Fla., Jan. 4-7, 1959. 2. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 3. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 4. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 5. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 6. Stough, A. R.: *J. Oklahoma M. A.* 52:575, Sept., 1959.

A TRUE "TRANQUILAXANT"

Trancopal®

keeps the patient on the job.

Winthrop LABORATORIES / New York 18, New York

Trancopal (brand of chlormezanone) and Caplets, trademarks reg. U.S. Pat. Off. 1431M

Passes more exams than a Ph. D!

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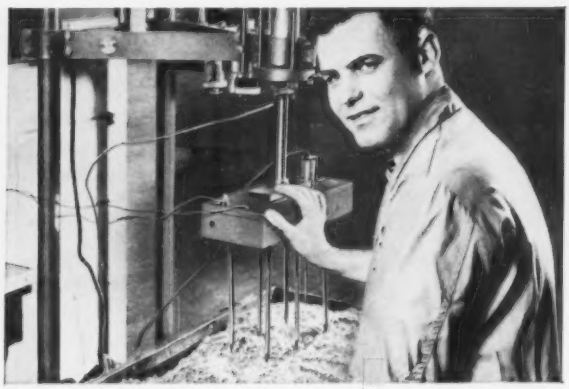

CHEMICAL EXAMS: One of the many tests developed by the Research Laboratory is this "shock test" to measure electrical conductivity of tobacco. Since conductivity varies with moisture content, the test reveals tobacco moisture.

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GRADUATES WITH HONORS: One of the many honors earned by American Tobacco in its 55 years of making quality cigarettes is the Distinguished Service Award presented to the Research Laboratory by the Virginia Academy of Science.

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superior topical corticosteroid

In convenient aerosol spray—for the treatment of dermatoses, particularly in out-of-reach problem areas—a fresh approach to therapy

- the superior anti-inflammatory effect of Kenalog Spray[1-7] provides anti-inflammatory, antiallergic, and antipruritic relief in acute, exudative, weeping lesions, even in extensive, out-of-reach problem areas.
- minimal local irritation and less chance of local contamination.
- metabolic studies show electrolyte disturbance does not occur when Kenalog is applied topically.[1, 4, 5]
- easy to apply, gives broad, even coverage, and permits observation of lesions as they heal.

Indications: Atopic dermatitis, contact dermatitis, eczematous dermatitis, neurodermatitis, seborrheic dermatitis, insect bites, pruritus ani and vulvae, lichen simplex chronicus, exfoliative dermatitis, stasis dermatitis, nummular eczema, sunburn.

Dosage: Apply the spray to the affected areas from a distance of 3 to 6 inches, t.i.d. or q.i.d. A 3-second spray (delivering approximately 0.1 mg. of triamcinolone acetonide) covers an area about the size of the hand. *Cover the eyes when using Kenalog Spray on or near the face.*

Supply: Kenalog Spray in 50 and 150 Gm. containers of 3.3 mg. and 10 mg. triamcinolone acetonide respectively. Also available—Kenalog Cream (0.1%), Kenalog Ointment (0.1%) and Kenalog Lotion (0.1%).

References: 1. Reports to the Squibb Institute for Medical Research. 2. Howell, C. M.: Squibb Clin. Res. Notes *1*:5 (Oct.) 1958. 3. Goodman, J. J.: Squibb Clin. Res. Notes *1*:1 (Oct.) 1958. 4. Smith, J. G., Jr.; Zawisza, R. J., and Blank, H.: Squibb Clin. Res. Notes *1*:6 (Oct.) 1958. 5. Fitzpatrick, T. B.; Crowe, F. W., and Walker, S. A.: Squibb Clin. Res. Notes *1*:1 (Oct.) 1958. 6. Lerner, A. B.: Squibb Clin. Res. Notes *1*:2 (Oct.) 1958. 7. Robinson, R. C. V.: Bull. School of Med., U. Maryland 43:54 (July) 1958.

*KENALOG-® IS A SQUIBB TRADEMARK.

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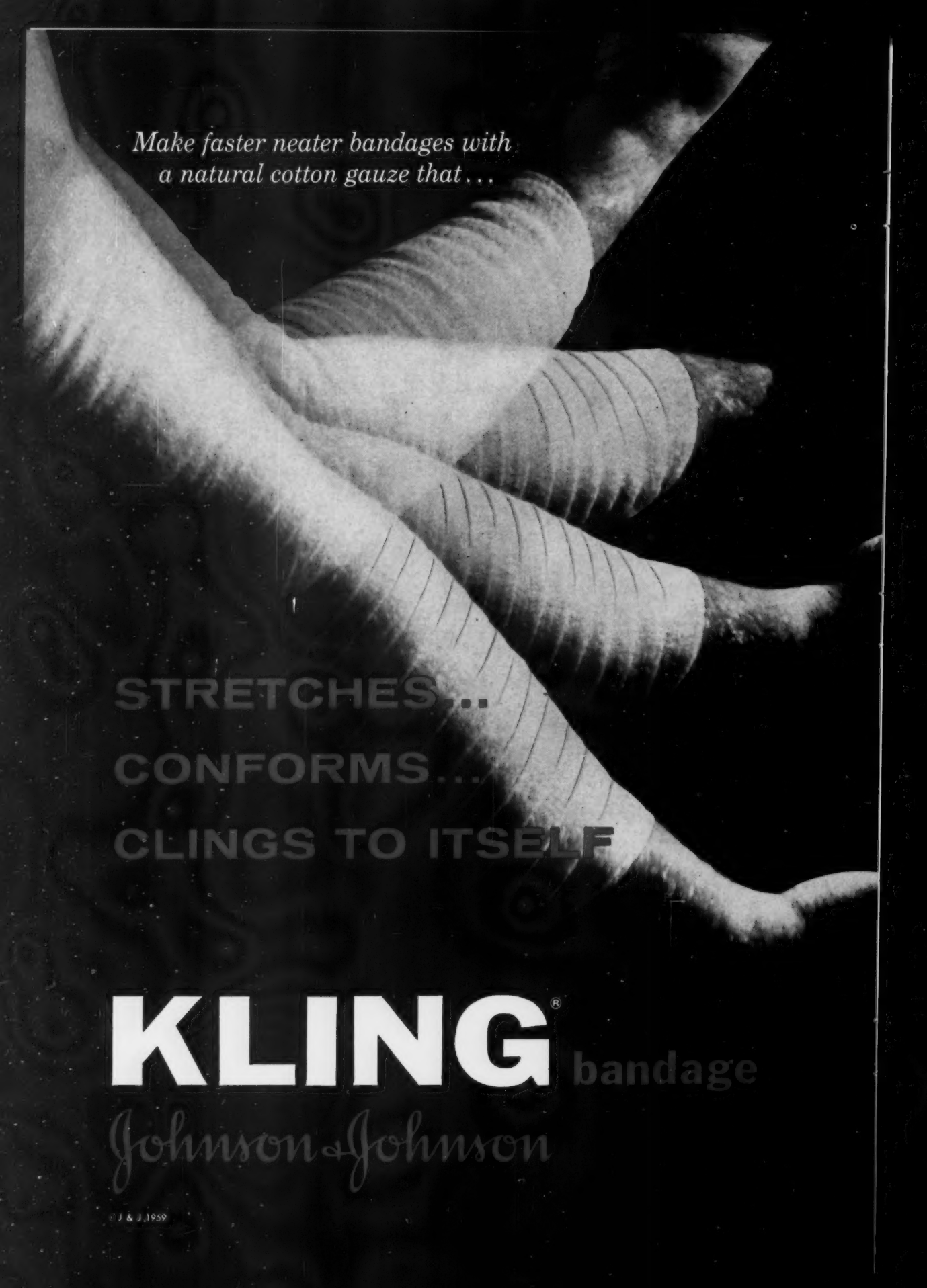
the Priceless Ingredient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8.7% of employees to whom you give plain aspirin may return the same day with an upset stomach.* This aspirin intolerance apparently is due to the local action of aspirin.[1]

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*Based on 8.7% patient intolerance to salicylate therapy reported by Tebrock, H. E.: Ind. Med. & Surg. *20*:480-482, 1951.

1. Kelly, J. J., Jr.: Am. J. Med. Sci. *232*:119-128 (Aug.) 1956.

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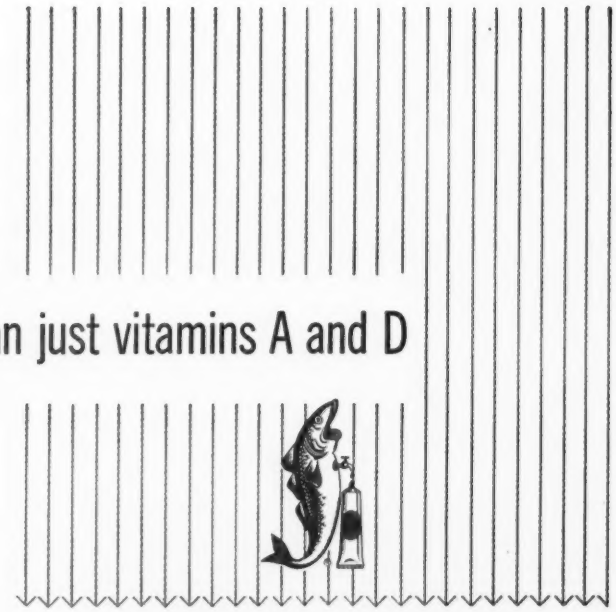
more than just vitamins A and D



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also provides
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in a smooth creamy ointment so processed that one application of Desitin soothes, protects, and promotes healing for hours in...

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ulcers
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Tassette®

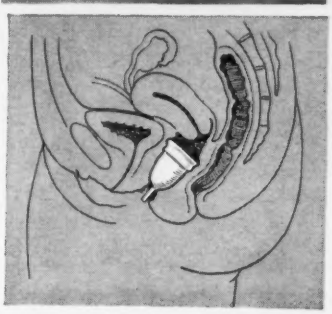
the safe and sanitary menstrual cup

You can prescribe Tassette with full assurance that your patient will find a safe, effective and completely acceptable answer to her menstrual control problem. *Tassette,* made of soft pliable rubber fits anatomically at the mid point of the vaginal wall and acts as a catch basin for the menstrual flow (see anatomical drawing). It is easily folded, needs no inserter, and can be simply emptied and replaced as needed. Tassette requires no measurements or fitting, and can be worn with complete comfort at all times.

Tassette permits your patient to swim, dance and engage in any activity because it catches the flow and seals it off completely. Thus there is no odor or possibility of leakage or staining as may occur during periods of heavy flow when tampons are used. There is no danger of chafing, irritation or infection, and no belt is required, as with ordinary sanitary napkins.

Tassette has many medical applications other than its use as a menstrual cup. During the intermenstrual period it provides the most satisfactory and safe method for collecting vaginal, cervical or uterine secretions for diagnostic purposes. Tassette has also been used to insure against leakages in vesico-vaginal fistula.

Modern internal menstrual control is now accepted by the medical profession and Tassette is widely recommended by gynecologists in place of sanitary napkins and tampons. In order to acquaint you with Tassette this special offer is made: Send $3.50 (reg. price $4.95) for one Tassette with complete directions, postage prepaid. Tassette guarantees satisfactory use for two years or your money back.



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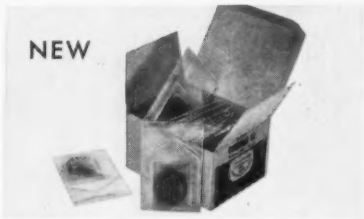
SURGICAL PRODUCTS NEWS

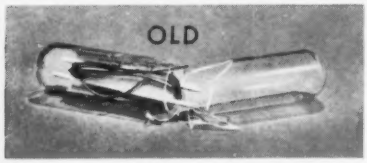
SAFER SUTURE DISPENSING TECHNIC NOW WIDELY USED IN THE O. R.

Standardization on Davis & Geck Individual Plastic Strip Packs Combines Greater Safety With Simplification of Handling, Shipping and Storage Problems

Old style bulk storage in jars and solutions poses constant threat of cross contamination with "staph." or other organisms, particularly the hepatitis virus whose susceptibility to any cold germicidal solution is unknown. One contaminated suture tube returned to a common storage container may contaminate all the rest. In addition, jars are heavy, hard to open, difficult to store, prone to costly breakage.



New Davis & Geck Surgilope SP® sterile suture strip packs protect each suture individually in sealed plastic double envelopes, completely eliminating the cross-infection hazard of common storage in jars and solutions. Compact, lightweight 3-dozen cartons replace clumsy, fragile jars . . . handling is faster and easier, breakage is eliminated and shipping costs are sharply reduced.



Slippery, hard-to-break suture tubes are awkward to handle and a time-consuming nuisance to open. Razor-sharp edges of broken tubes frequently nick sutures and adhering glass splinters may actually invade the operating field. Unused tubes must be washed, sorted and returned to jars.

With Surgilope SP packaging, the circulating nurse simply strips open the outer envelope to dispense the sterile, sealed inner envelope containing the suture. Three simple, speedy dispensing technics fit any operating room situation. Extra sutures are quickly opened as needed, reducing waste and time-consuming resterilization.

Delivery of sutures, *particularly surgical gut,* on tightly wound reels tends to kink and weaken sutures . . . excessive handling is required for unreeling and straightening.

New Davis & Geck loose-coil winding delivers a supple, kink-free suture, ready for instant use.

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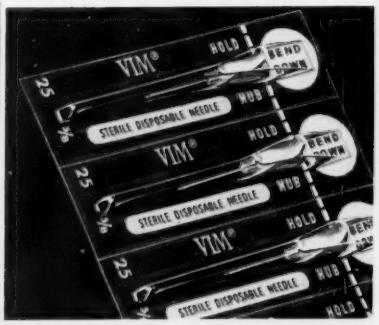

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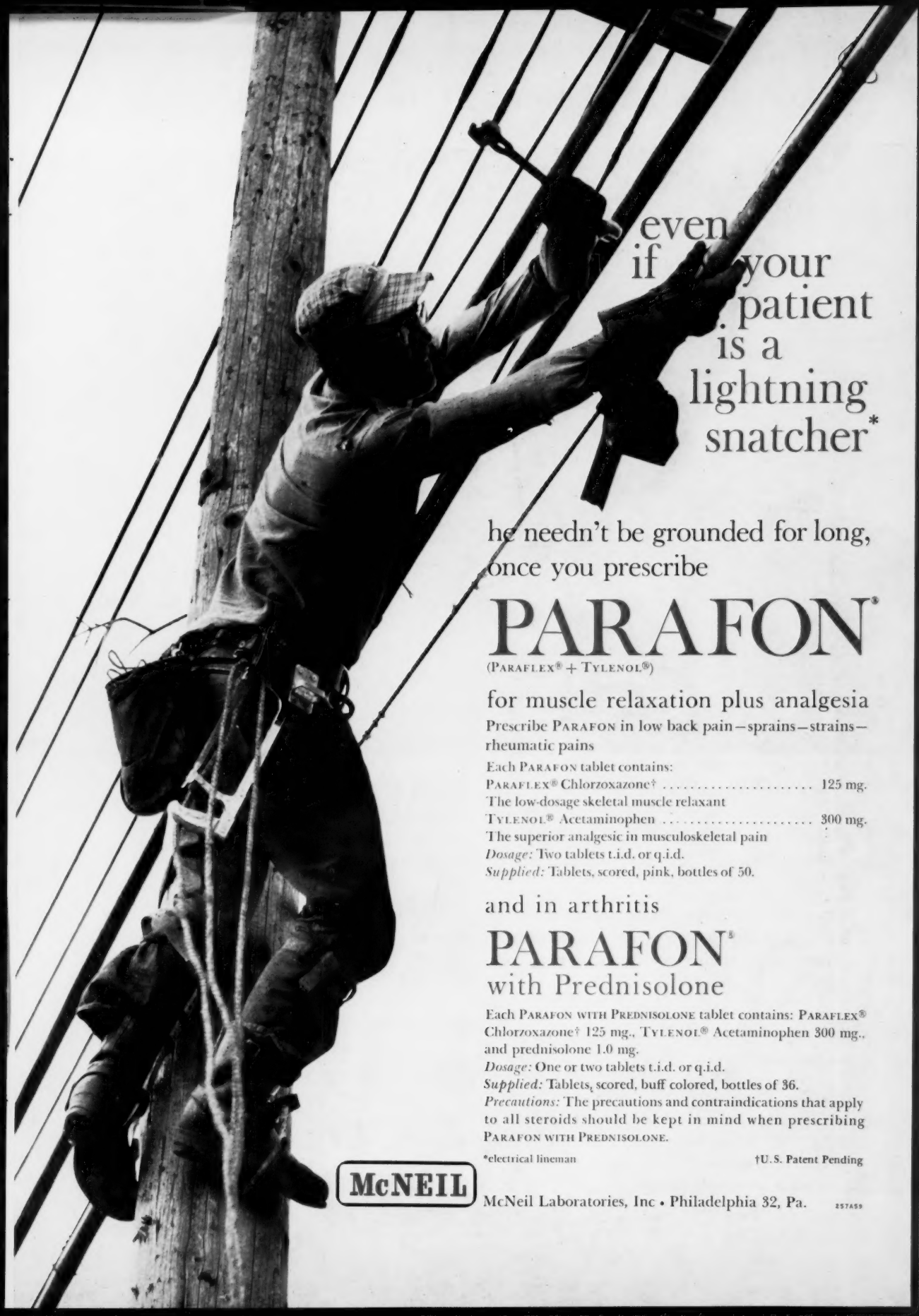

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REFERENCES:

1. Langs, R. J. and Strauss, M. B.: J. Allergy. 30: 130-139 (March-April), 1959.
2. Langs, R. J., Fuchs, A. M., and Strauss, M. B.: Indus. Med., 28: 6, 257-261 (June); 1959.
3. Kligman, A. M.: J.A.M.A., 171: 592, (Oct. 3) 1959.
4. Personal Communications.

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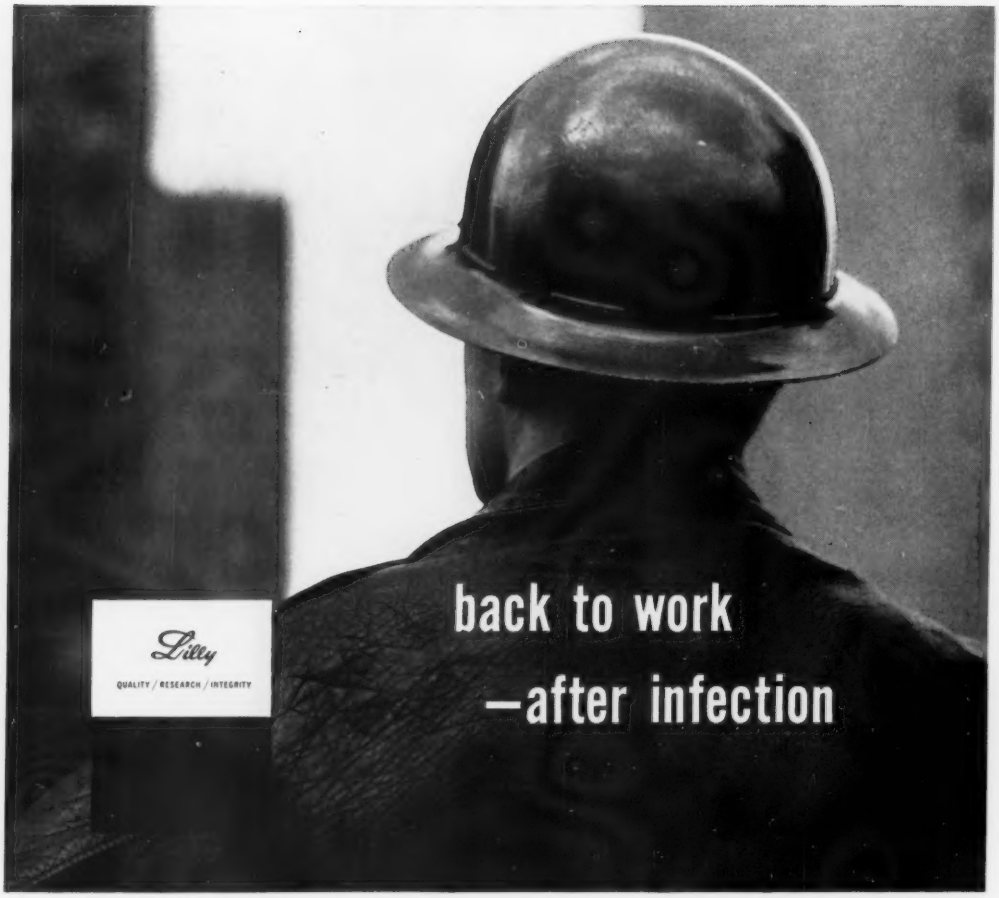

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IMS

Labor Relations Aspects of Industrial Medicine

Cornell University Off-Campus Conference

Industrial medical programs, dating from the early twentieth century, have expanded with an ever-increasing effect on labor-management relations. Yet little, if anything, had ever been done to establish a base from which the industrial physician, the management official and the union representative could explore and develop mutual understanding. Attempts had been made to discuss labor-management problems, but too often one of the three interested parties was not present. Actual discussions in the past between management and the medical profession clearly demonstrated the need for serious consideration of the problem if enlightened medical programs were to become a part of American industry.

Leaders from labor unions, industrial medical programs and industrial relations convened October 21-23, 1959, at Saratoga Springs, New York, where they joined efforts through the medium of a structured, seminar-type program to discuss and evaluate present industrial medical programs. The conference was sponsored by New York State School of Industrial and Labor Relations, State University of New York, located at Cornell University. Interjected throughout the topics and discussions were problems that have grown over the years: role of the industrial medical department, confidential nature and status of the industrial doctor, advisability of the doctor testifying in a medical arbitration hearing, etc.

An ever-increasing concern of unions for "working conditions" in collective bargaining sessions has resulted in medical benefits for the workers that were thought untenable to management's position. Therefore, it was not surprising that one of the most difficult hurdles to overcome was that of definition. Though cognizant of its importance, those in attendance moved into the more specific problems while leaving the definition of industrial medicine for further study.

Worthy of notation was the recognition of industrial medicine by a few medical schools that now provide both undergraduate and graduate courses. Other schools have increased the time devoted to the problems encountered by the part-time industrial physician. A lack of literature on the subject is quickly discovered by the physician who is motivated enough to seek out information in order that he may do a better medical job.

Through, and as a result of, this conference it is hoped that others will gain a better insight into the problems encountered by the practicing industrial physician. Of particular importance is the plight of the small business that cannot afford the medical services so common to large industry.

Evident throughout the conference was a willingness by all to discuss the questions frankly, but with the realization that each of the three groups represented must face up to the problem internally, and educate its own body before a truly sound industrial medical program can be universally effective in American industry.

Complete conference notes, with the valuable discussion material, will be available from the New York State School of Industrial and Labor Relations, Cornell University, in the early spring. Edited by William A. Toomey, Jr., conference chairman, this volume will provide a frank approach to the labor relations aspects of industrial medicine. —WILLIAM A. TOOMEY, JR.

What IS Industrial Medicine?

• LEO J. WADE, M.D.
Medical Director
ESSO Standard Oil Company

During the past 50 years, the efforts of physicians, hygienists and safety engineers to prevent injury in industry is reflected in the dramatic increase in the industrial worker's life expectancy and the fact that this author may now assert that any job required by industry can be done without harm or injury if it is done correctly.

I do not like the term "industrial medicine"; it is too confining. We are more properly concerned with the health of people who work, whether in industry, department stores, universities, theatres, farms, or filling-stations. I prefer the term "occupational medicine" and I shall proceed as if "industrial" and "occupational" medicine were synonymous.

The possible relationships between occupation and health or disease have been recognized for centuries. The first book devoted to the subject, however, was that of the Italian Professor, Ramazzini, dated 1713. Not until the Industrial Revolution, first in England, and later in the United States, were many of the problems brought acutely to the attention of both medical and lay persons. The responsibility of the employer in this area was not clearly defined prior to the advent of workmen's compensation laws early in the twentieth century. The attendant economic pressures caused many managers, especially those in large plants, to establish in-plant medical services.

Injuries were by far the most common and most costly medical problems encountered. A part-time surgeon, or at least one "on call," and a nurse were usually retained. Thus dispensary or clinic services were historically the basic component of an industrial medical program.

Economic, humanitarian and moral considerations led most managements, with the aid of physicians, hygienists and safety engineers, to seek ways of preventing injury on the job. The success of these efforts is reflected in the striking increase, during the last 50 years, in the industrial worker's average life expectancy. It is now comparable to that of the general population, largely as a result of preventing trauma. Nonoccupational injury in the home, on the highway, etc. has become relatively a far greater hazard than injury on the job. Except for occasional dramatic revelations, industrial factors leading to chronic medical disabilities were not recognized until relatively recently. These, too, are outnumbered 100 to one by chronic, nonoccupational disease.

One may say with certainty today that any job required by industry can be done without harm or injury to the worker if it is done correctly. This conclusion is corroborated by the observations of many effective industrial medical departments. Disability secondary to occupation accounts for fewer than 5%, and in some instances 1%, of all disability cases. Careful study of disability secondary to occupation in such plants often reveals errors in judgment or

performance of the injured workman himself or of one or more of his fellow workers, or human errors in the design or manufacture of equipment. The frequent accumulation of millions of man-hours in industrial plants without a single disabling occupational illness or injury gives credence to the belief that occupational disability can be all but eliminated. Perhaps it may seem that I labor these facts, but I wish to emphasize that the great achievements of industrial medicine are in the realm of environmental hygiene and the prevention of occupational disability rather than in the area of treatment of the disabled employee.

Growth of In-Plant Medical Services

Along with this decrease in the frequency of occupational injury and disease has come an increase in the number of physicians employed by industry. The membership of the Industrial Medical Association has grown from 350 members some 25 years ago to more than 4,000 today. These figures do not reveal the true growth of the field, however, in that they fail to take into account the increased number of physicians devoting their full time to this specialty. Yet, there is an increasing awareness on the part of both management and employees that more industrial medical services are needed.

The growth of industry accounts for some of the increased number of plant doctors. And, although the relative frequency of occupational disease has been decreased, such disease has not been eliminated. Even the remote possibility of occasional disaster in historically hazardous industries causes some managers to maintain a readily available medical staff. Chiefly, however, the increased number of physicians in industry is the product of new concepts of the possible roles of medical services in industry.

Some of these new concepts are legitimate and reflect a growing awareness on the part of management of the great importance of employee health and welfare. Other new concepts are definitely not legitimate since they are obviously an invasion of the medical care field. Aside from objections on the part of the private practitioner of medicine, medical care programs in industry tend to crowd out, replace and prevent the development of essential occupational medical services. This is a backward step and is not in the interest of employee health and safety on the job. I make a plea at this point to avoid confusing occupational or industrial medicine with other varieties of medicine. The mere fact that a medical program is carried on within the confines of a plant does not assure that it is truly an "industrial" or "occupation" medical service.

Industrial Medical Services Defined

Now that I have told you some of the things industrial medicine "isn't," it is essential that I tell you what it "is." If an in-plant medical service is to be dignified by the label "occupational" medical program, it must consist of three activities or groups of activities: (1) the working environment must be under constant scrutiny for potential health hazards, (2) the worker must have assurance by medical examination from time to time that his health status is compatible with his own and his fellow workers' continued health and safety on the job, and (3) the working population must be provided with emergency medical services commensurate with the potential risk to occupational injury or illness.

I would like to discuss each of these three factors briefly. Occupational medicine cannot be practiced in an office. Familiarity with the actual place and conditions of work is essential. Hence the physician specializing in industrial medicine has given more and more of his time to the study of the working environment and less and less to the treatment of disabled workers. Prevention of illness or injury by environmental control is the hallmark of an effective occupational medical service. The working environment obviously varies in nature and complexity from one industry to another and from one job to another. To his concern for hard hats and safety glasses, however, the physician in industry has added innumerable problems of chemistry, toxicology, physics and interpersonal relationships: new synthetic materials, x-rays, isotopes, noise, heat, light, bacteria, odors, anxieties, etc. are examples.

Within recent years increasing numbers of industrial hygienists have joined the physician in this important activity. The hygienist has brought technological abilities and training to bear upon situations which require engineering, as well as health, skills. There has been a tendency, unfortunately, for the doctor to abdicate and to relegate this important function to the hygiene and safety engineer. This I believe to be a grave mistake.

"Working environment" is usually envisioned in terms of fumes, dusts, gases, mists, solvents, noise, radioactivity, radiant heat and other physical-chemical agents. The working environment also includes people — those with buoyant health, the partially disabled, people with personal and social problems or with inadequacies of mentality or emotional adjustment. These workers as individuals can contribute to a safe and healthful working environment, or they may present a hazard to themselves and to their co-workers. Thus, the employee with tuber-

culosis or the crane operator with epilepsy can do irreparable harm to his fellow workers. Even a chronic though innocent clash of personalities may be disrupting to the production goal. A sound and comprehensive approach to the working environment involves not only the use of accepted engineering and public health practices but also practice of good clinical medicine.

Clinical means of providing a safe and healthful working environment include a medical examination program. The basic objectives of such a program should be: (1) elimination of health hazards introduced by virtue of medical defects in the individual employee, (2) early detection of any evidences of health impairment arising from possible inadequacies in the engineering control of environmental health hazards, (3) instruction and guidance of individual workers reporting for examination on proper safeguards to their health so far as occupation is concerned, and (4) use of medical information obtained to prevent or control nonoccupational disease.

It is customary to examine the worker: (1) prior to employment or placement, (2) upon return to the job after absences due to illness or injury, (3) at appropriate intervals during the course of employment, (4) prior to retirement or other termination of employment.

Definite contributions to a safe and healthful working environment may also be made through careful attention to dispensary and therapeutic activities.

The dispensary services provided by industrial medical departments are an invaluable tool in the early recognition of defects in the environmental control program. It is inevitable that dispensary service cares for countless minor nonoccupational ailments, few of which would find their way to the private practitioner's office. Uncared for, these ailments may be costly in terms of over-all employee productivity.

The alert physician or nurse in the dispensary may identify sources of illness beyond the control of individual workers. The epidemic nature of some complaints may reveal more than the specific nature of the illness. Thus, 10 cases of conjunctivitis or of "nervous indigestion" all coming from a given unit in a plant mean something different to a plant physician than these same 10 cases would mean to five or 10 individual practitioners in the community. In such cases the plant physician has a reasonable chance of correcting the basic cause of the epidemic, while the physician outside the plant can only treat the symptoms.

In summary I wish to re-emphasize that the content, rather than the physical location of a medical program, is the basis for characterizing it as an "industrial" or "occupational" medical service. True industrial medical services are oriented along the lines of preventive medicine but do not encompass the entire field of preventive medicine. Emphasis must be on the working environment and its possible relation to the health or disability of the working population. Diagnostic and therapeutic services may be valuable adjuncts to this basic activity but infinite care must be exercised to keep these job-oriented. There is constant danger that such job orientation may be lost, in which case the basic role of an occupational medical service is also likely to be lost.

To further emphasize my effort to define and circumscribe the field of "industrial" or "occupational" medicine, I call your attention to my deliberate failure to discuss medical care programs in industry. I am well aware that such programs exist. I submit, however, that these programs do not and cannot take the place of an "occupational" medical service. On the contrary, medical care programs tend to demand more and more of the doctor's time for the treatment of disabled workers so that the basic industrial medical services are ultimately crowded out. If medical care programs are introduced into an industrial situation, they should probably be located in a different place from the industrial medical program, have their own budget, and be provided with their own staff, distinct and separate from the occupational medical staff.

Less Age Barrier

Older worker employment is up, reports the New York State Commission Against Discrimination. Approximately 30% of the workers placed by the State Employment Service in 1959 were over 45. This compares with 29% in 1958, and 21% in 1953.

—*Industrial Relations News*, Sept. 5, 1959.

The Viewpoint of Management

The Role of the Industrial Medical Department

• THOMAS F. NOLAN
Industrial Relations Director
Niagara Machine & Tool Works
Buffalo, New York

As management's representative on this panel, the author emphasizes the medical department's need to establish a good working relationship with other department supervisors, management and the rank and file employees.

The background of the growth of the medical department relates to the enactment of Workmen's Compensation laws in the early 1900's. Prior to that time, companies provided little or no medical care for their employees. Medical programs, at the outset, were primarily designed to reduce compensation costs by providing prompt medical care to employees for occupational injuries and diseases. This was particularly true in the more hazardous industries. Once the occupational disability program was established, medical care was extended in many companies to minor nonoccupational ailments that occurred during the working hours.

During the past 30 to 40 years, the scope of the industrial medical department has been broadened to include many additional services. Moreover, all types of industrial firms have medical departments, rather than just those with hazardous occupations.

Today, the concern for the individual worker has caused many companies to assume a new approach, one extending beyond the prevention of job-connected accidents and diseases.

Health maintenance, or the prevention of illness in general, has been incorporated into the objectives of many medical programs. For example, a great number of companies have added preplacement and periodic examinations of employees to the functions of their medical departments.

In spite of the changes that have taken place in the last 30 to 40 years, it appears that the transformation in company health services during recent years has not yet ended. There are economic and other reasons behind this continued growth of medical and health programs.

For example, the number of disabled and old people in the population is increasing. This situation can bring problems to the employer, such as absenteeism owing to chronic ailments, high insurance costs of medical benefit policies, and correct job placement of older and physically impaired people. All these problems require the help of persons trained in medicine.

Company competition for efficient workers has impressed upon managements the importance of safeguarding the health of their employees in whom they have invested time and money.

There is a national consciousness of the large number of emotionally disturbed persons in the population. Since many of them are on company payrolls, counseling and aid from a company's medical staff may help to solve their emotional difficulties.

Industrial advance and an atomic age bring to the job new work materials and processes that may affect the health of the workers.

Many companies have adopted health insurance plans as a fringe benefit for employees. They reason that if they are to pay people who are absent because of illness, why not pay for a

program to keep people from becoming ill?

Many companies that have had medical and health programs over a period of years can testify to the benefits of these programs. Such testimony is an important influence in determining other companies' decisions to initiate health plans.

Since World War II, many companies have adopted periodic physical examination plans for executives. In some cases, these programs have resulted in startling discoveries of unsuspected physical disabilities in executives. This has led many companies to offer periodic examinations to all employees.

Unions have pressed managements to include benefit insurance provisions covering the medical needs of workers in collective bargaining agreements. This situation is causing some managements to decide that it is smarter to have preventive health services that detect trouble in its early stages than to pay the heavy insurance costs that result from extensive medical care later on.

A company's objectives in establishing an employee medical and health policy are influenced by its size and type of operations, by the amount of money that can be invested in a medical service, and by management's philosophy about what an employees' health program should include and what the program can include without the company practicing medicine.

However, if a company does not put its objectives into writing, it may find itself with a program that is either far more limited or far broader than was intended when the medical service was established.

In the absence of a written statement of policy, the company doctor lacks the authority to establish a program. A policy statement, on the other hand, reflects the attitude of a company's top management with regard to employee health and provides an effective framework for the doctor in designing and organizing a health program to merit the objectives of top management.

As I pointed out, leading factors in determining the scope of activity of a medical department are a company's size and type of business.

For example, a firm whose operations require employees to work under hazardous conditions and noisy surroundings is more in need of an industrial hygiene program and periodic auditory examinations of employees than is the firm whose operations are conducted entirely across the desk.

One factor that finally determines the extent of medical operations in many companies is the differing philosophy of doctors, and often of company managements, what a company health program can include and still be administered under the idea of preventive medicine.

In other words, how extensive can employee medical services become without the company's engaging in the practice of medicine? Some doctors and managements believe, for example, that to give influenza and Salk vaccine innoculations to employees is to step outside the ethical limits of company medical programs. Others consider this service to be part of the preventive medical approach to keep employees well and on the job and, therefore, well within the jurisdiction of company medical personnel.

Despite differences in the approach to a health program, companies with constructive medical services are basically following the plan of an occupational health program as defined by the American Medical Association's Council on Industrial Health, which states, "A program provided by management to deal constructively with the health requirements of employees and employers in relationship to employment."

The Council believes that a company health plan should be set up so that it observes the basic principle of service to the individual by a physician and conforms to medical customs in the community; complies with existing laws; emphasizes prevention and health maintenance; and utilizes community medical resources when adequate, or when they can be developed reasonably.

Within the limits defined by the AMA, a comprehensive program should include health maintenance activities, such as an environmental health program concerned with hazards generated by solids, dusts, gases, vapors, extremes of pressure and temperature, excessive noise, and excessive vibration.

A comprehensive program should also encompass preventive activities such as preplacement examinations and scientific job placement, as well as periodic health examinations followed by referrals of employees to their family physicians.

Accident prevention through efficient safety programs is so closely linked to good health that safety should be a part of the industrial health department.

One of the most important activities of a comprehensive medical program is the preplacement or pre-employment physical examination.

Companies give preplacement physical examinations to prospective employees to determine whether they are physically capable of performing jobs for which they are being considered. Such examinations are important safeguards, both for the worker and the employer. If the company is not aware of the person's physical limitations, the person might be placed on a job where he would not only be a menace to other workers and a compensation liability to the company, but would also be risking his own safety. A majority of companies require pre-

placement examinations of all prospective employees.

There is a growing awareness among managements of the importance of including executives, along with other personnel, in preplacement examinations. It is felt that the investment in an executive tends to be much greater than in other employees; therefore it is as important to know his physical stamina as it is to know the physical capabilities of the manual worker.

Other than the preplacement examination, the most common physical examination practice is the periodic checkup. The purposes of such a checkup, of course, are to detect physical abnormalities in their early stages, to check on the state of chronic ailments and diseases already diagnosed, and to maintain a close watch on the physical condition of persons whose work may entail health hazards.

Periodic examinations are a good health maintenance measure. Through the discovery and treatment of disease in its early stages, the individual is able to live a useful working life for a longer period.

Also, health and medical insurance costs, as well as time lost from the job, are apt to be less for early treatment of a disability than for later care when the disability has reached a more advanced stage.

It is as important to give physical examinations to workers after periods of layoff as it is to give preplacement examinations. Physical changes may take place in the individual over a period of months, or even weeks. A worker may have suffered an accidental injury during layoff, which could have a bearing on a possible future compensation claim. There is also a possibility that job demands may have changed, and the company may find it advisable to re-examine a person to judge his physical capabilities for a redesigned job.

In recent years, industry has become increasingly conscious of compensation risks entailed in excessive noise. As a result, many companies have instituted hearing protection programs, which include efforts to reduce noise in the plant; auditory tests as part of the preplacement physical examination and during employment to determine how much hearing loss is the result of work surroundings and how much is due to his own physical deterioration.

Mental hygiene has become an increasingly important part of industrial health programs. Recognition that mental anxiety not only affects health but also may cause serious mental illness is responsible for the inclusion of mental hygiene as part of many company health services. The programs are designed to help the individual lead a better adjusted life. This includes counselling employees on how to care for themselves — how to eat, rest, relax, avoid accidents, get along with associates, how to live with or remedy physical impairments.

Other important activities of a comprehensive medical program include visual programs, first aid courses, and industrial hygiene and safety.

A company medical department is usually located on company premises and is staffed by one or more nurses and by one or more doctors. The doctor or doctors may be employed full-time or part-time, or they may serve only on a call basis.

The kind and amount of service provided by medical departments, as I previously pointed out, varies widely from company to company.

A large company's medical staff may be supplemented by one or more specialists. There may be an industrial hygienist, a medical technician, a psychiatrist or psychologist, a dentist, and even a podiatrist. In addition, many companies have panels of consulting physicians. In small and medium-size companies that want a more comprehensive program than their own resources can provide, a new type of plan is growing. This is a cooperative arrangement with neighboring companies to share some of the expenses of a health service.

The cooperative plan has variations. One arrangement is the employment of a doctor on a full-time salary basis by a group of companies in a community. The doctor divides his time among the participating companies and supervises the medical service of each company. A cooperative plan may also be one in which companies share a clinic. Usually, companies sharing a clinic provide a first-aid attendant or nurse on the company premises.

To have an effective medical program, whether it is conducted on company premises or in a clinic, it is important that both the doctor and nurse have had specialized training in occupational medicine.

However, the effectiveness of a company's medical personnel is not limited to the professional skill and training of the doctor or the nurse. Factors such as a good attitude, understanding of human relationships, and administrative ability, likewise are important. The doctor and the nurse may be top professional people, but unless they can establish good working relationships with each other, with other department supervisors, with management, and finally, but perhaps most important of all, with the rank-and-file employee, they may fail to develop a successful company program.

Just as doctors complain that some company executives assume too much professsional responsibility in the management of their company

medical departments, so, too, do companies complain that some doctors are so immersed in their own areas of specialization that they fail to regard the company as an entity in which all units must mesh.

Understanding and an effort to cooperate with other department heads are important if the doctor and nurse are to attain and keep the good will of associates. Reluctance of supervisors to release employees to visit the medical department has been overcome, some companies say, by the medical personnel's determined efforts to be friendly with supervisors and to educate them on the aims and benefits of a health maintenance program.

But a good working relationship with supervisors is only part of the doctor's job. He also must get the cooperation, respect and confidence of the rank-and-file employee. To achieve this, the physician requires more than proficiency in his work. Needed also is adherence to the ethical principles of the medical profession, particularly that relating to confidential treatment of an individual's medical condition.

Since the physician's job is concerned with the well-being of every individual in the company, it is commonly agreed that his role, as well as that of the nurse, should be a neutral one. If the doctor and nurse are to retain the confidence and cooperation of both employees and management they cannot afford to display a bias for any individual or group.

Finally, the company's medical program must have the full support of top management if the doctor is to succeed in carrying out the function of the program.

Never Twice in the Same Place

Robert C. Hendrix, M.D., Associate Professor of Pathology at the University of Michigan Medical School, summarized present knowledge of the physiological effects of lightning striking a human being.

"The effects of lightning fall into four major categories: mechanical damage, such as hemorrhage or rupture of internal organs, chiefly the intestines; heat or burn damage from the flash; secondary burn damage from clothing, and electric shock.

"This last is the most difficult to predict or pin down. Electric shock disrupts the nervous system in various ways. It can also—and this is more common—disturb the function of the heart. This results in what is commonly called a heart attack."

When the heart stops momentarily, Hendrix pointed out, the loss of circulation quickly affects the brain. If the stoppage is not too long, recovery is possible but it may take weeks or months, and it is almost entirely in the hands of nature.

According to modern mind theory, a person's seat of consciousness is believed to lie in the deeper part of his brain. Professor Basu K. Bagchi of the University's Neuropsychiatric Institute, has studied lightning-shock victims' brain waves through electroencephalography and found "diffused functional and nonspeceific changes in which both the upper and lower parts of the brain seem to be affected."

If the victim is not killed instantly by lightning, he generally recovers in a fairly short time, although for months he may have some lingering disturbance such as deafness, impaired vision or a persistent tingling sensation.

Your over-all chances of being killed by lightning are far less than the danger of man-made electricity in your home or on the job. A recent one-year survey showed that 181 persons throughout the nation were killed by lightning. This is approximately one for each one million population. Meanwhile, seven per milion were killed by man-made electricity in homes, streets and factories.

Lightning does not seem to tear and shatter human beings, the way it does a tree. In rare instances, people who have been struck by a bolt have suffered no marks at all, but generally there is a mark where the charge entered the body and another mark where it left. The entering mark is a medical curiosity because it seldom turns red like an ordinary burn. The skin tissue is simply burned away by the intense flash, leaving a small dark slit in the flesh. Lightning has more drastic effect on wearing apparel than on the body. It can be attracted to anything metallic and during its brief flash has been known to melt a belt buckle.

The Viewpoint of Labor

The Role of the Industrial Medical Department

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Labor's panelist defines the fundamental business of the industrial medical department as environmental hygiene: the prevention of injuries. The chief concern of such a department in a union is with the provision of workmen's compensation for its members.

The first thing we must decide is just exactly what industrial medical department we are talking about. Are we going to talk about the industrial medical department that works for a teaching university? The industrial medical department that works for a governmental department? Or the industrial medical department that works for a labor organization?

I think it is rather obvious that those three different kinds of industrial medical departments are not going to see problems in the same way. They are not necessarily even going to see them as the same sort of problems.

I think that it is rather obvious that the medical department in industry has a practical problem of keeping people on the job. The medical department in a university should be more oriented to research and teaching, and will not be so concerned with the practical matter of keeping people on the job as they will with the fundamental reasons for things and with the new things that are appearing.

The industrial medical department in a governmental agency is apt to be oriented toward the enforcement of laws rather than to the other major concerns. I do not think they should be, but they are. The industrial medical service growing up in a labor organization, it seems to me, is an implicit statement that the labor organization does not feel that the medical department in the plants is doing the job it should be doing.

Quite frankly, I do not think an industrial medical department ideally has any place in the labor union. I dislike the necessity for them, but I think we are going to have more of them as time goes on, both in the industrial union and the craft union. I am deeply convinced that provision of industrial medical care is both a responsibility and a right of the management, and they should be exercising that right. The only reason that the union is going to get into it is because management is not doing it properly.

An industrial medical department has many functions. I think that one of the legitimate aims — but only one, and only a relatively small one — is to reduce the compensation liability of the management. I think that, fundamentally, the only real function which an industrial medical department in a union can serve is to increase the compensation liability of the management, because they can not, in the nature of things, do very much in the way of environmental health. Their major role is going to be to see that the members of the organization get all of the workmen's compensation to which they are legally entitled. That is a perfectly legitimate function, but one which we should not have to carry out within the union.

One of the functions that is seldom sufficiently

emphasized in the industrial medical department within industry is that of industrial relations. The medical department can do an enormous amount to increase the good will with which the employees regard the management, and can do it very simply. The only thing required is that their operations give the employees the notion that the medical department is fundamentally interested in their welfare and that the medical department does not believe that employees' health and comfort are things which they sell in return for their wages.

There are a great many places where there is no such feeling among the employees. I would like to cite one instance where this feeling has not been engendered; where we have, I believe, serious reason to suspect that there are deficiencies in the service. This involves two small foundries that I once thought were comparatively enlightened. For almost 20 years, they have had annual physical examinations of all employees. They have had a very good bill of health for all of those years. As it happens, they have both used the same clinic for this purpose.

Within the last three or four years, we have turned up seven posthumous and a couple of live cases of advanced silicosis, which had not been diagnosed as a result of these annual examinations that included x-ray examinations. Seven cases were confirmed by autopsy slides; two were confirmed by lung biopsy done for other purposes. This is the type of medical service that is not in the interest of the employees. Eventually it may turn out also to have been expensive for the management of those firms.

While we are on the subject of silicosis, I think there is a fairly general implication in the fact that the first useful treatment for silicosis came out of the efforts of the Miner's Memorial Fund of Kentucky, and it came quite early in the efforts of that group. They haven't cured any silicotics. I don't think they are going to, but they have at least done something useful in improving their lot.

I think that one of the worst failings that we see in the usual industrial medical department is an excessive concern with compensation liability after the occurrence, rather than an attempt to limit the compensation liability prior to the occurrence of the injury. In other words, the fundamental business of the medical department in an industry is, or should be, environmental hygiene, the setting up of situations to prevent injuries.

It can be done, and has been done by a number of medical departments. One of the most fascinating things that I have run into happened in a plant in New York State, not so long ago, where they had the misfortune to have a rather severe release of oxides of nitrogen. It is a plant that goes in for a lot of nitrations of organic materials. They had one individual who had the bad luck, or bad judgment, to get a big lungful of oxides of nitrogen. He was pretty sick. The fascinating thing was that the treatment had to be strictly by the book. There was nobody in the medical department who had actually seen a previous case of severe inhalations of oxides of nitrogen. They had practiced environmental hygiene for a long time, and they had not been releasing oxides of nitrogen in significant amounts. They did not know precisely how to treat it.

That is a particularly fascinating plant from my point of view, because I have been interested in industrial safety and hygiene for a long time, and one of the characteristics of safety programs in this country is safety competitions. These are not really "safety" competitions. They are competitions in the reduction of injuries, and this particular plant is one which has never been able to get any awards for the reduction of injuries.

The plant always has a fairly high frequency rate, in spite of the fact that I think that they are doing an excellent job both in industrial health and in industrial safety. The situation only sounds anomalous. They are practicing industrial medicine with a minimum of traumatic surgery and with a minimum of traumatic medicine. When traumatic medicine is required they practice, I think, strictly in the interest of the individual who has been injured and not in the interest of making a record for the safety department. So they are reporting a lot of cases that others don't report as lost time injuries.

These competitions, which have become extremely important to many companies, are pressures which we have deliberately put on the industrial medicine departments, because in these contests, we don't choose to do what we say we are doing. We call them accident prevention contests. They are not. They are contests on injury reduction, and we don't count all of the injuries. We count some of them, and the one who has to decide which ones we are going to count is the industrial physician involved. It is something that he shuldn't have to do. It is anomalous, it is dishonest, and it is a distinct disservice to industrial medicine.

I shouldn't, perhaps, read such a moral judgment on it, because there is a considerable body of opinion and a considerable body of evidence that these contests do result in a substantial reduction in injury rates. In fact, as you look over the history of all industry over the past 40 years, you know that something has happened to reduce injury rates on the job by a factor of about five

since 1926. Rates were running 31; they are now about 6.1.

I think these contests have had quite a lot to do with it. However, I believe they are overriding their usefulness in this particular direction at the present time, when we are getting injury rates on the order of half an injury per million man hours worked. When we find people coming in to work with walking casts and airplane splints and that sort of thing, I think we are going somewhat beyond the very best practice of traumatic medicine. This is something I probably shouldn't judge, but that is my feeling as a layman.

Part of our trouble also stems from the medical school, where a physician in his formative years is almost never given any training in the idea of prevention of illness or prevention of injury. Medical treatment, for many years, has been directed strictly to the treatment of the ill individual, not to the maintenance of the health of the well individual, and, certainly, not the maintenance of the health of the well individual in industry.

For a number of years, I taught the only industrial health and accident prevention which was provided at Northwestern University Medical School, and that consisted of two hours on each of two consecutive days in the senior year of medical school, and those boys were concerned with their rounds in the hospital and with some extremely difficult types of therapeutic courses they were taking. The only thing they wanted of me was to get me out of that hall and forget about me.

This is why, in most of the more forward looking industries, the physician has given that function over to industrial hygienists and safety engineers. I don't think he is wise in doing that.

This is a failing which the medical profession is going to have to overcome if we are going to get widespread good environmental health.

Tranquil Offices

The National Office Management Association has just reported on the latest survey of the organization covering the "Physiological Factors Governing Office Environment." This is a compilation of 1,974 companies on the changes that factors such as air conditioning, lighting, sound control, music and furniture have produced in today's modern office.

Seventy-five percent of the respondents indicated that their organizations have sound conditioned offices. Forty-three percent of replies listed improved employee morale, 29% increased accuracy, 16% increased volume of work, 4% decrease in loss of employee time, and 4% decreased turnover, all traced directly to noise reduction. Air conditioning, practically nonexistent 20 years ago, has been installed in 72% of the offices surveyed.

Painted walls with pastel colors are preferred over all other types of wall covering by 77% of the companies responding. Results of the color questions asked indicated that 53% had more pleasant surroundings, and 33% reported reduction of eye strain. Less frequently mentioned were such benefits as increased morale and prestige with visitors.

Twenty years ago incandescent lighting was used in most offices. However, 83% of the offices represented in the survey are now equipped with fluorescent lighting.

Eighteen percent of the companies surveyed have a music system in the office and reported music successful as a means of reducing fatigue and monotony in certain types of office work. In addition, management's opinion of the music system indicated that: 27% like it, 7% feel work output increases through its use, 30% no opinion.

NOMA's Standard N7.2, which allows 60 to 80 square feet per person (including accessories) for the general office area, is rapidly growing in popularity. On the question of allocating space in the office, 62% of the respondents reported that their companies are using this standard.

All in all the emphasis in the office today is on good lighting and ventilation, as well as attractiveness and cheerfulness. The office of today is a most pleasant place to work and has resulted directly from the incorporation of these physiological features.

In the practice of occupational medicine, the role of the physician as a teacher is of utmost importance.

Maintaining the Professional Status of the Doctor

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The physician in industry, to be at all effective, must play a dual role. First, he must be a doctor, well trained in the practice of medicine. Second, he must be an administrator, specifically qualified to establish medical programs which will be of value to the industry in which he works.

The problem of maintaining his professional status as a physician arises when there has been dissension about his role of administrator and might lead to lack of respect and unwillingness to accept his decisions as a practicing physician. In fulfilling his duties as an industrial physician, he may easily fall into the derogatory category of the so-called "company doctor."

In order to dispel the initial distrust of the employee-patient, it becomes essential that the doctor develop a rapport with these patients similar to that which a family physician must develop with his patients. To develop and maintain such a relationship, he must institute a sound medical program and maintain high ethics.

The industrial physician must acquire a full knowledge of the industry he serves and a sound understanding of the medical and psychological problems engendered by the duties of the workers in that industry. Armed with such specific knowledge, the industrial physician can more efficiently determine the needs of the physical plant for his department and the equipment required. He can properly plan the medical routines for the handling of the patients, and he can best staff such a department with the nurses and doctors required.

The words, "to doctor," have several meanings. Two which pertain to our subject this afternoon are "to heal" and "to teach." However, in occupational medicine, I feel strongly that the role of the doctor as a teacher is the more important of the two.

To maintain professional status as a healer, the physician must, of course, have the proper medical qualifications which enable him to have graduated from a recognized medical school. He should have had sufficient training in internship and residency to make of him a competent doctor. In order that he then be properly qualified to establish a well-functioning occupational health program for the industry in which he works, he must have had training, either practical or didactic, in that field of medical endeavor.

In the May issue of the *Journal of Occupational Medicine*, Doctors Kehoe, Sterner and Kammer discuss the problems involved in the certification of a physician in occupational medi-

cine. I refer you to their articles, mainly because they point out that we have come a long way from the mere treatment of injuries and illnesses as they occur on the job.

The first professional contacts of the industrial physician are, of course, with management. Management must accept the fact that the professional status of the doctor is an essential part of the doctor's effectiveness. Management can soon be convinced to cooperate with the physician and his medical department, if the doctor demonstrates that he has the proper medical approach to specific problems of the particular industry in which he works.

The doctor's first contacts with the personnel department of his industry should develop a relationship which shows that he, as a physician, wishes to learn their problems. He can then show how mutual cooperation between the personnel department and the medical department can lead to increase in productivity of the employee. This concern of the physician about health security, which will lead to better productivity, is one which will strengthen his position in the minds of management. Management's position must be considered as one of the third parties involved in the doctor-patient relationship, especially essential when the physical or mental health of the worker is detrimental to his job function.

However, under no circumstances, should the industrial physician allow himself to become involved in disputes as to the measure of a worker's efficiency. The physician's report in such circumstances must be complete and factual, but it must never be opinionated.

There is another third party involved in the patient-doctor relationship; the union and its representation. Here the role of the doctor as teacher becomes very important. There should be frequent educational contacts with union welfare representatives. The industrial physician should be fully conversant with the unions' desires to promote the welfare and health of its employee members. Just as it is important that he educate the worker-patient, so it is also important that he discuss the anticipated health problems with union representatives.

It is to the industrial physician's benefit that he convince the unions that his prime concern is for the health and care of their workers. Actually, these employees are management's workers as well, and also the doctor's patients, and as such they are the concern of all three parties.

The initial contact of the worker with the company doctor is usually at the time of the pre-employment physical examination. In this instance, the physician is concerned with the patient's past medical history, his present physical condition, and his potential medical status. Here the physician must be concerned with the potential risks to the company or management. Here the patient is aware of the fact that this is a critical examination and not a pure doctor-patient relationship.

In this instance, the worker must be willing to allow disclosures of his medical problems, and decision based on these disclosures should not affect the professional integrity or professional status of the physician. Subsequent contacts with the medical department, however, are of a different nature. In most instances, they occur because of a medical complaint or injury. Here the prime consideration of the physician should be that of the patient, and the third parties are only incidentally concerned. It is in these contacts that the industrial physician should endeavor to develop a rapport and a sense of trust. It is basically here that a firm patient-doctor relationship can be established. This relationship can lead only to better cooperation of the worker with management and his union, both of whom have been responsible for his well-being. This can lead further to the respect of the medical department and to the understanding that the professional status, which is being maintained, is for the benefit of all the parties concerned.

There are definite signs which show that the industrial physician has been successful in building and maintaining his professional status. This is obvious when management tends more and more to consult with him concerning their problems; when production departments discuss their proposed safety devices or review their workmen's compensation problems with the medical department; when the board of directors approves new equipment requests without a struggle; when the union officials discuss health problems with the company doctor; and when personal problems of the employee-patients are brought to the attention of the medical department. These are all sure signs that the industrial physician has truly achieved a high professional status in the minds of the people with whom he is associated.

In industry, where preventive health programs are of importance, not only to the health of the individual worker, but to the continuing operation of production, the teaching of maintaining health routines, the programming of polio injections or flu injections, etc., are also of utmost importance in maintaining the professional status of the doctor. Here again, the doctor as a teacher is the important factor. Here again, his first contacts are with management and with unions in order to set up programs so that the employees' health can be benefitted. Periodic

health bulletins, health pages in periodic plant bulletins or union bulletins are of great aid to such programs, and it is the industrial physician's duty to convince management and union alike that these articles appear in these bulletins. In fact, the doctor should be the author of these articles. The worker's knowledge that his medical department is concerned with bettering his health and maintaining his health leads again to acceptance of the doctor's decisions in other medical problems, when they occur.

Another factor of importance in this regard is the relationship of the company physician, this time, not in its derogatory sense, with the family physician of the patient. I recall a recent incident in a small plant with some 600 employees, where a young clerical worker who was suffering with some back trouble remained away from work much longer than was anticipated by the medical department of this plant. A telephone conversation with the orthopedist, who was taking care of this patient, revealed the fact that her back strain was under control with the proper support, but that in his estimation there were many home factors involved which kept this girl from coming back to work. The medical department found itself in a rather ticklish position because the employer wished to have this girl back to work or to fire her. It was difficult to get a written statement from her family physician or from the orthopedist. The situation required a discussion between the head of the personnel department and the physician. It took time before the girl would appear before the medical department for an examination, and then, only after her orthopedist told her of the personal consideration of the company doctor. When she did, it was ascertained that the greatest part of her difficulty was that of emotional problems which involved a love affair, etc. It was only after this careful joint effort that the orthopedist, when again called by the company physician, was willing to write a letter stating that this girl could return to work. It was only after this happened that she agreed to return to work, and it was only after several discussions with her on a practical psychiatric basis that she continued with her job in a satisfactory manner. This type of approach in which the medical department played an important role, more as a teacher than a healer, has led to easier solutions of other problems, which have occurred since then. This happened because the girl talked about the personal interest of the doctor to the other workers in her department.

When we come to the preventive medical program as it relates to the higher-ups in industry, we sometimes have a more difficult task to perform as physicians. The confidential nature of the examination of an executive is one which meets with considerable difficulty. In most instances, it is agreed by industry that these preventive health examinations on a yearly basis are of great importance. The security of health of a highly paid executive is well accepted. Some companies prefer that these examinations be completely confidential between the executive and the physician, but then wonder of what use these examinations can be to the industry itself. It is not our purpose to dwell on the merits of such confidential nature of examinations as opposed to the method used whereby a third party of management is involved in the discussion of the results of such an examination. However, here, too, the establishment of a good relationship between the executives and the medical department will lead to an acceptance of such a program and to benefits derived from it, even if a third party is not involved. Such relationship occurs only after repeated favorable experiences. The word of the physician and advice to the executive as to his ability to carry on with the stress and strain of his job can only be accepted if this executive knows that the physician is giving his completely honest opinion and is not being biased by some higher-up in the industry, and only if this executive knows that there can be a close relationship between this company physician and his own personal doctor. In this way, he will be ready to accept the suggestions made after an extensive executive examination has been performed.

This leads me to a brief discussion of the relationship of the company physician with outside physicians and outside agencies. I recall vividly two separate instances which occurred during the Second World War which have some bearing on public relations and maintenance of professional status. This occurred in an automotive plant, where there were some 2,000 people employed. These were civilians employed in an Army plant, where jeeps, weapons carriers, etc., were being prepared for shipment overseas. Five hundred of them were painters using paint spray guns. We had the system whereby, after an individual had been out ill for 24 hours, he had to report to the medical department. They were also asked to bring a note from their family physician after being absent from work. Two of these workers had gone to a particular family physician, who gave them similar notes stating that they had lead poisoning. They left these notes open in their hands, and they were passed around among the other workers. Within half an hour, we had a threatened walk-out of about 500 painters. This required a lecture on the floor of this plant by the physician. This required a

teaching of what lead poisoning was, and a careful explanation that neither of the two workers showed any clinical signs of this condition. This also required the measuring of urinary lead in these supposedly lead-poisoned cases, and then a talk, 48 hours later, about the proof that there was no lead poisoning.

The second instance took place in the dynamo department. There the workers were fixing motors on engines of cars, jeeps, weapons carriers, etc., and here, too, there were 500 employees. In this case, an employee came in, again with an unsealed note from a doctor on the outside, stating that he had carbon monoxide poisoning. Again we had a walk-out problem. Again, we sought outside agency help. I got in touch with M.I.T. and brought to the plant two technicians who measured the carbon monoxide content of the air in this portion of the plant. This time, it was necessary to have a general meeting; the entire shop of 2,000 people was ready to quit, because they were all fearful of getting carbon monoxide poisoning. We were able to have these two representatives get up on the stand and prove that there was no such thing as carbon monoxide excess in this plant. These are examples of what one sometimes has to do to develop confidence within a plant of disturbed workers.

Before turning, briefly, to nonoccupational health problems in industry, I would like to offer a suggestion for good intraplant public relations, which could lead to constructive developments. There can be instances when union opinion differs from management in the case of dismissal of an employee because of a health problem. In some instances, such considerations come before an arbitration committee. It would be of joint benefit if the company physician were not asked to render an opinion before the arbitration committee in these cases. Such instances are limited, and it is better for all concerned to avoid criticism of the doctor in these few isolated cases. His opinions and decisions will be accepted more readily in the many and more important problems which involve all parties concerned, if this relationship is established and if he cannot be criticized as being a pawn of either management or the union. I don't mean to say that he is not to render an opinion when he sees the patient, or that he is not to give this opinion to both parties involved — but when it comes to having his opinion openly questioned by the family doctor of the patient, let's say, or by the third party called in by both, then I think we run into the danger of minimizing his efficiency in the more important problems that come every day of the week. I would rather see things of this sort handled so that it is acceptable to both management and labor, that the third party is called in to make his decision without prior knowledge of the diagnosis of the company physician.

We physicians must remember that productivity of an individual depends not only on his own physical and mental capacities, but on those of his family as well. The worker whose wife or child is ill can be disturbed sufficiently so that his work is of little value. If he is able to resort to a confidential discussion with the physician at his plant concerning these problems — if that physician or medical department handles this in a satisfactory manner, the medical department is able to give this worker advice which is of help to him outside of his work.

The gratitude felt leads to great appreciation on the part of the worker for his employer and toward his job. The decorum and sympathy of the medical staff in these matters is of utmost importance. I feel that this goes far beyond a doctor's duty as a physician. Every one of us, as physicians, has had instances in which he has been of help in correcting the behavior problems of a child of one of the workers by seeing to it that the family is advised of the proper agency to take care of the matter. Every one of us has been able to advise the proper specialty care for the wife of an employee. I need not go into the specific instances where an employee has been unable to carry on with his duties because of a chronic ailment in his family and where, because he was able to go to the medical department of his plant and be advised as to the proper way in which such a condition should be handled, he was then able to return to his duties and function well. I am sure that all of you have had similar experiences and have seen satisfactory results. These results were not only satisfactory in that they led to improvement in health of the employee's child or wife and, thus, to an improvement in his own mental and emotional well-being; these results were of even greater importance in that they led to a wholehearted acceptance of the company doctor and his staff and to an understanding of the efforts of the company, itself, in establishing a medical department which undertook the solving of the total family medical care problems. This type of medical care serves to maintain the professional status of the doctor and, in those instances where union activity has led to the establishment of some sort of medical program for the employees, to a greater feeling of security because of the union's intervention in their behalf. It seems to me that such a simple method of establishing good public relations within an industrial plant would be universal. Unfortunately,

it is not. If it could become universal, I feel that it would prove that this effort in maintaining professional status of the doctor could be a very important cog in the wheel of productivity.

In medical care programs and their relationship to maintenance of the professional status of the doctor, the doctor as a teacher is again the important factor. First, he must teach himself. He must become acquainted with all of the factors involved in indemnity health programs offered by insurance companies. He must become acquainted with community service plans and with comprehensive health insurance programs. As an individual practitioner, the doctor should know about these plans, because, in his every day practice, he should be able to answer his patient's questions regarding such matters. In industry, it is even more important that he do so, because he is in the key position to advise management and union representation as to the best type of medical care available for the employees in a given community. At present, unions in New York City and elsewhere are working on a program for labor which is thinking in terms of establishing union hospitals and union health programs. The union leadership would benefit greatly if they did this with proper guidance of physicians who had been actively working with the problems of health in industry — with physicians who had the practical knowledge of the everyday medical problem of the worker, and with physicians who had worked in organized health programs. It is not enough for the company doctor to be able to answer the question which a patient might give him concerning a surcharge, let us say. I had such a case the other day. A patient came in, following a gall bladder operation, for which he had been charged $300, and he wondered why his physician had charged more than was allowable by the insurance service, which had supposedly been acquired for him by his union, in conjunction with management, to cover all his ailments. Just explaining to him that the small print on the policy didn't allow him, because of his income level, to have this without the surcharge isn't sufficient. Such a problem is an easy one. The doctor must also be able to answer problems of a more profound nature, such as the questions which arise about "free choice" of physicians, about the number of physicians needed for a given community, about the factors of utilization of services, the proper premium for such services, the limitation or comprehensive nature of such services, and the geographical distribution of facilities for the service. The doctor should know whether industry itself should be a vital part of the establishment of these facilities. He must be acquainted with the relationship of the consumer, management, the union and the doctor in the supervision of such service — and in the supervision of quality of medical care.

I have mentioned only the highlights in such programs, of course. I would like to quote part of President Eisenhower's statement to the National Health Council at its recent forum concerned with The Health of People Who Work: "The concern of your present Forum, 'The Health of People Who Work,' represents a challenge directly related to the technologic progress in preventive health matters. It involves the well-being and productivity of almost seventy million workers . . . . This is a challenge which can be met only by the combined efforts of management and labor, the health professions, government, private and voluntary health agencies, and civic and community groups . . . . My earnest hope is that by bringing together these diverse and dedicated groups, your Forum will make a major contribution to the protection and improvement of the health of those on whom our national economy and security depend."

Migraine; Ergo, Ergot

Harold S. Feldman, M.D., believes that "another look at ergot using the current scientific methods of evaluation is recommended, since it . . . may unlock a storehouse of new therapeutic tools." Ergot was first used in crude form as far back as 1582 to constrict blood vessels.

Ergotamine was isolated from ergot in 1918. "It was the first pure ergot preparation to find widespread application in human medicine," Dr. Feldman reported. "It has stood the test of time and is recognized as the most effective vasoconstrictor specifically indicated for relief of migraine attacks."

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The Medical Situation At The Plant Level

Many medical industrial cases become problem cases because of the misunderstanding of the function of the industrial medical department by private practitioners, labor groups and others interested in in the welfare of the worker.

I should like to bring into focus some case examples as they have arisen within my experience and knowledge. These experiences cover a broad range of industrial organizations and are not referable to any single industrial organization. They are, perhaps, typical of almost any segment of our industrial system.

During the 1930's, legislation empowered unions to bargain for wages, hours and working conditions. Wages and hours are rather easily defined, but the list of working conditions that have been subject to collective bargaining has, over the years, grown quite extensively. Whether we call our internal plant medical organization a dispensary, a hospital, a clinic, or whatnot, there seems to exist some question among some unions of whether occupational medicine is a proper subject for collective bargaining.

In my opinion it is not. The functioning of an occupational medical organization is distinctly a managerial function, and one which management must set up as a separate department just as it would set up a production control department. It can be discussed, but it is doubtful whether an area involving a professional status situation is one which logically is a subject of collective bargaining.

An individual's first contact with the medical facility in an industrial plant occurs at his preemployment physical examination. From a labor relations standpoint, I don't think we have very much trouble here. A doctor examines the prospective employee keeping in mind general criteria which have been established for the various jobs in the plant. Based on these general criteria, which have usually been gained from a great deal of experience, we can either accept or reject a potential employee. Furthermore, with knowledge of any deficiency a potential employee might have, and having hired him even with a physical or other deficiency, industry usually has a probationary period during which the man's employment can be severed without recourse to any grievance procedure. This enables an organization to determine whether any conditions discovered in the preemployment physical examination are going to be an on-the-job handicap.

I think the area of our specal interest is summed up by the question: "Where do we in occupational medicine go when something has been questioned?" Let me, for the purpose of our discussion, pose this question: "In cases other than those involving workmen's compensation clauses, may the employee, with or without the intervention of his collective bargaining representative, question or otherwise dispute a decision of the company's Medical Director, if he believes such decision to be erroneous?"

This opens a wide area of discussion. I will try to cite a few areas involving labor relations problems in occupational medicine. These are real situations and, may I caution you, will by no means exhaust the subject.

The first general group involves occupations where there are legally required periodic physical examinations — food handlers, etc.; and truck drivers whose physical requirements are established by Interstate Commerce Commission or Public Service Commission Regulations. In

many of these agreements, language has been inserted with respect to these required physical examinations and how questions arising from them are to be resolved.

A typical one from an existing trucking agreement: "All truck drivers shall be required to pass an annual physical examination, performed by an employer-designated physician, to determine their fitness to continue as truck drivers. The results of the examinations shall be made in writing to the employer and made known to the employee. Should the employee or the union dispute the findings of the employer's physician, the employee involved may, at his own expense, be examined by another competent physician.

"In the event the two physicians' reports are at variance, any difference shall be submitted to an impartial third physician for final decision. The third physician shall be selected by the employer's physician and the employee's physician."

This brings us into the realm of a professional arbitration. Over a period of time, I wonder if it isn't medically possible that the physical condition of a truck driver will deteriorate to the point that he shall be removed from truck driving? The I.C.C. regulations may require this. What about loss of hearing, impairment of eyesight, and that sort of thing?

Assume a man has been driving a truck for 25 years or more. We can assume that over-the-road trucking is hard on a man and that his physical condition has been deteriorating over a period of years. The eventual problem is, that under these legally established requirements, this man can no longer drive a truck. What happens when, legally, he can no longer continue with his present job?

The contractual language cited presupposes that it is possible to have a difference of opinion even between competent physicians.

Suppose the man is rejected; what then? Modern management — enlightened, having a thorough-going medical program, and a conscience of responsibility — would undoubtedly seek to rehabilitate such a man. If he cannot be rehabilitated, such a management would make every effort to find him another job. If this is not possible, worthwhile retirement programs in existence in industry today make ample provisions for disability retirement. How can these managerial decisions reasonably be questioned? Although I am sure such cases exist, I am not aware of a situation which reached the ultimate decision. With a mature and sincere union, interested in its members, as management is interested in their employees as individuals, some solution will be found whereby such an individual will continue to be a productive employee.

Another great area involving labor relations in occupational medicine involves the increasing employment of women in factory jobs. Here, many problems can arise. In some industrial areas where women work in close proximity, I have seen the following complaint create a vexing and delicate problem: "This girl casts off offensive odors. We won't work with her any more." Here one assumes the role of a teacher.

It is not always the physician who can accomplish this. Registered nurses, who have dedicated themselves to occupational medicine must be called upon to assume a role in educating these girls, mature females, in the essentials of personal cleanliness and hygiene.

With an increasing number of women in industry, maternity leaves of absence and attendant problems multiply. Most industries have established policies or programs with respect to the time during pregnancy, when a young lady must leave the employ of the company. New York State law is silent about the time an expectant mother must leave her job, but it does say that she cannot return to work until four weeks after the birth of the infant.

What do you do in a situation such as the one I was faced with, when the birth almost took place on the floor of the plant? Then, within a week after delivery of the infant, the girl's personal physician said, "You can go back to work, now. It is perfectly all right," and so informed the employer. In refusing to return her to work, the plant physician cited the state law and company policy which, usually, required 60 days period to elapse before return to work. Nevertheless, this young lady persisted saying she needed the money. Her physician unwisely, I think, volunteered that "She has been a healthy, hard-working girl, and I think she can go back a week after the infant has been delivered." Fortunately, mature union leadership refused to press a claim for earlier return to work.

The question has recently arisen involving a miscarriage. Should we apply the same standards for a miscarriage as we do for a pregnancy that results in normal delivery? There are many variables and vexing complications possible in this area.

This leads us to a most important function of any medical facility, that of the return-to-work physicals after operations, illnesses, etc. Most plant physicians have had the experience of sending employees home for additional rest and recuperation, before they can return to work. Their doctors may have said, "It is okay for you to go back to work but tell your boss that you need light work." But they never define what "light work" is. In most industries, there is no such thing as "light work" in a factory.

There is always some bending, lifting, stretching, etc. or some sort of physical exertions.

The employee's physician will insist that returning to work is psychologically and therapeutically essential to his patient. General practitioners could benefit from a greater awareness of industrial requirements and problems.

In some instances, if skills are great enough, management can find some productive work for the employee. But if the individual does not have a real skill, the problem is difficult, however great management's desire to use the individual's abilities.

The trend toward corrective heart surgery — and we have had more than our share of these cases recently — has brought with it some real concern over rehabilitation. Fortunately, we have had some good experiences with these cases starting out at two or three hours a day and gradually working them up to a full-time job again. The skilled surgeons who performed these delicate operations tell us that they are not at all certain just how rapidly such patients should resume their normal activities once again.

We have similar problems with slipped disc and the spinal fusion cases. We have had a situation where one man came back to work within three weeks after a spinal fusion and carried on his normal job, with no bad effects. In other cases, the employee has stayed out for six or seven months and still insisted he couldn't come back to work unless he could be assured of "light work," where he could remain in one relatively small area, without doing bending or stooping or lifting, or the essentials of most of our jobs.

Our physician has said, "Unless you can perform the job, and you know what the job is, we will not permit you to return to work."

I think one of the real problems in many of these cases is that the individuals involved do not explain to their personal physicians the nature or content of their job. It is really quite difficult to explain this to some of the individuals or their physicians. For example, my company manufactures books. A book only weighs two or three pounds. However, we don't deal with two or three pounds. We deal with a carton or case of books. Most physicians just can't comprehend that there is that much weight involved in some of the work that their patients are expected to do.

Another case that was brought to my attention was that of a cardiac patient in another company. The personal physician had said that his patient could return to work. The company medical director examined him and informed the man that he should go back to his personal physician immediately. His personal physician then called the Medical Director and insisted that the man was ready to resume his normal activity and that there was nothing wrong with him. During the two or three day period in which the discussion was going on between the two doctors, the man died. The company Medical Director had discovered something which he tried to pass on to the man's personal physician who would not accept it. This is another hazard and it is a tribute to this occupational physician that he was extremely thorough in his examination to uncover conditions not previously recognized.

I think the medical profession, perhaps through its associations, has a great deal of work to do among the general practitioners, especially in creating a climate in which the occupational physician's opinions are held in a little higher regard by some individuals.

It is unfortunate that this particular situation occurred. I don't think you will find another incident of this type very soon, but it was a situation that hit very hard. Just before this man's death, the management of the company had decided that perhaps the Medical Director was wrong, and perhaps they should put the man back to work. Now, if a man goes through that medical facility and the physician says he can not return to work, management raises no question about the doctor's opinion.

We get into a gray area on the physical condition of a man being considered for a promotion. Should he not meet the physical standards or requirements of the job opportunity, what theory is to apply?

This is an area that does violence to the union idea that the most senior man must be given an opportunity to qualify. We may have a man who is deemed accident prone as demonstrated through his plant work history. These things are not to be held against him, but if there is a history of similar types of accidents, should this not be considered in evaluating a man's promotability?

We try to do this. Fortunately, I have not often been faced with this type of situation. The only case in which a real question arose, the individual readily accepted our decision and indicated some concern over his ability to undertake the assignment.

In the interest of employee's general health, companies frequently offer periodic physical examinations. It has not been my experience that these are accepted in the spirit intended. People are suspicious. If a man doesn't "pass," what is the company to do? Is he going to lose his job? I am not convinced that the problem is entirely one of communications.

The purpose of periodic physical examinations

is preventive in nature. We do not offer periodic physical examinations except in certain categories. I hope that ultimately we will offer everyone such examinations and believe we can create a climate of receptivity that will be wholesome. Not only will we then better the health of our employees, but it will undoubtedly reflect itself in experience under our major medical program.

We do give the standard innoculations of Salk vaccine and the Asian influenza shots. The Asian influenza innoculations brought some reactions, as is normal. We treat these things as courtesy treatments and usually such treatments far outnumber the accident or first-aid cases. In a recent month, for example, we had over 1,300 visits to our medical facility of which in excess of 800 were nonoccupational. This demonstrates, I feel, an acceptance of the general philosophy of interest in our employees' well-being which goes beyond the desire to keep them on the job.

There is no doubt that modern management is most generous in providing for all employees' well-being and security. Retirement programs, major medical programs, and in-plant medical services demonstrate this. None of these programs are established on the spur of the moment, but, as has been pointed out earlier, only after a great deal of deliberation. Alert management has accepted such programs as economically sound. The implementation and functioning of these programs is, of course, a professional matter.

Returning to the question I originally posed, I would suggest that the answer logically is no, unless it can be affirmatively demonstrated that the Medical Director's professional opinion was biased or prejudiced. Furthermore, and with no disrespect intended to many arbitrator friends of mine, it is my opinion that the techniques of the grievance and arbitration procedure are not equal to the task of coping with the complexities of these medically-based problems.

The cases which I have cited were either dropped after an informal personal discussion, without disturbing the Medical Director, or the decision was accepted after a short discussion with the Medical Director.

The acceptance of the physician in industry is no longer a problem. It is to the credit of our labor friends that they have accepted the professional status of the occupational medicine concept and although informative discussions do take place, the problems have not found their way into the final steps of the grievance procedure.

I Didn't Know It Was Loaded

If past experience is any guide, deaths from firearm accidents will have reached their annual peak during the recent hunting season, it is reported by statisticians of the Metropolitan Life Insurance Company.

About 2,400 persons were killed in shooting accidents of all kinds in 1958. Such accidents are especially frequent during the three-month period from October through December, with the peak in November, when hunting activities are at a maximum.

Nine-tenths of the firearm accident victims are males, the statisticians point out. This reflects both their greater interest in guns and the fact that they participate to a much greater extent than females in hunting and other activities associated with the use of firearms. Adolescent boys are more frequently the victims than are members of any other age groups. In fact, youths at ages 15-19 years, while comprising only 3% of the total population of the United States, account for about 16% of those fatally injured in firearm accidents.

Despite the frequency of hunting accidents, nearly half of the people killed in firearm accidents are injured in and about the home.

"There is clearly a need to extend and strengthen education in safe firearm practices," the Metropolitan statistician conclude. "While it is true that many millions of Americans handle and store guns properly, the facts indicate that there are still many individuals who do not heed the necessary precautions. Many deaths from firearms occur because such weapons are carelessly pointed at a person, individuals shoot before they are certain of their target, safety catches are not always kept on until guns are ready to be fired, loaded weapons are left unattended, guns and ammunition are not kept in good condition, and rifles, shotguns, pistols, revolvers and ammunition are not stored safely out of the reach of children."

Development of Union Interest in Medical Programs

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One of the few generalizations one can make about American labor is that unions differ. An attempt to account for these differences will lead us in many directions. One can account for the differences, as is the case with so many American institutions, by noting the many different strains of peoples and ideals which have gone into making the present labor organizations what they are. For instance, when unions were first founded in this country their ideas were strictly those of self-help. Without being able to rely on courts or government offices, on laws or on allies, local unions, central bodies and even international unions were primarily concerned with improving conditions here and now in the shops. When Samuel Gompers was once asked what American labor wanted, he summed it up by saying, "More and more and more!"

Some of the factors helping form American unions have been considerably more radical. At one period, the goals of many labor organizations was self-help in the total sense of unions' setting up their own businesses in the form of cooperatives and thus through eliminating private business profit, or rather sharing it among the producers themselves, freeing workers from what they conceived to be wage slavery. At the beginning of this century the IWW with its peculiar brand of anarchosyndicalism organized immigrants, miners, lumberjacks, seamen, migrant agricultural labor. Socialists bored from within the AF of L hoping to line it up on the side forming a labor party and supporting a broad political action program. At a somewhat later date Communists working first through their own unions and later in the thirties from within some of the new CIO unions sought, by moving important sections of American labor behind an international policy favorable to Russia, to influence America's foreign policy. Although the present labor movement has been cleansed of all these influences, they have nevertheless at important periods in labor's history represented dynamic forces which have inevitably left their marks on both structure and program.

Labor has likewise differed among its various organizations as to how it could most effectively be organized. Until 1933 the American labor movement was largely set up in craft unions. However, since the thirties the industrial unions established by the CIO have been important factors; so important, indeed, that many of the old craft unions under the pressure of CIO success broadened their charters to include industrial organization. The result is that today most unions have some elements of both kinds of organization somewhere in their structure. The autoworkers, for example, are today concerned about integrating the skilled trades and white collar workers into their union. The skilled workers in the process have issued what amounts to an ultimatum to the union, saying that unless they may have some considerable autonomy within the industrial structure, they will form an independent craft organization. Whether this threat will ever actually be carried out is a subject of debate in circles far wider than the autoworkers, for many other unions have a kernel of the problem in their own ranks.

As a result of these variations in goals, in methods and in history, labor today presents a broad spectrum of structure. The extremes are represented on the one hand by the printing trades with the typographical union and the lithographers existing in about as pure a craft form as might have been found even a century ago. On the other hand we have massive industrial unions of which the auto workers, the steel workers and the rubber workers are classic examples. In between lie all the mixtures of these two extreme forms; unions which retain craft locals but amalgamate for purposes of collective bargaining and major administrative functions into joint boards which have the massive impact of industrial unions. The unions in the needle trades invented this organizational device. It has been carried to a most interesting form in

the hotel trades in New York City, where locals of 10 different unions, some industrial, some amalgamated, some craft, have formed a trades council to which they have given over responsibility for negotiating uniform contracts for everyone from the relatively unskilled maids and housemen to the highly skilled cooks, waiters, upholsterers and electricians and including the doormen and the desk clerks.

In addition to these variations in structure, we also find among unions a wide range of what they consider their functions and their goals. All unions do collective bargaining. Beyond that, some unions consider political action an important function; others do not. Some establish recreation programs, educational centers, homes for retired workers; others are concerned solely with wages, hours and working conditions. Hiring usually is considered an exclusive employer function. But in many industries, the union shares or even takes over this function entirely. Examples are the building and the maritime trades. The unions in these trades run hiring halls from which they supply workers on job orders from the employers. Indeed, in the port of New York, one maritime union not only supplies the worker but guarantees his health. He arrives on the dock for boarding ship with his papers signed by the doctor at the union's health center. I am not entering these facts in a debate over the question of what management's prerogatives ought to be. I am simply saying that in some industries management's prerogatives are defined in one way; in other industries, in another.

These variations in structure, in scope, in manner of working are not accidental. They are often reflections of the organization of the industry within which the union operates. The autoworkers have established departments within their organization named for the four major automakers; their Ford department deals with Ford; their GM department with GM, and so on. These structural designs may bear the imprint of a particularly dynamic and imaginative union leader who left his mark on the union at a formative stage in its history. It is impossible to think of the United Mineworkers without recognizing how John L. Lewis shaped it or of the musicians without Petrillo. Moreover, unions will vary according to the type of labor market within which they have to function. The building trades make local trade agreements and consequently give their local or district unions a large measure of autonomy. The steelworkers who bargain with a national industry organized in trustified structures have a highly centralized organization in which the national office sends its representatives to supervise closely the affairs of the local unions. In some localities, competition within the industry exerts so devastating a force both upon wages and prices, that management and union have joined forces in organizing their market, and have thereby established a pattern of shared responsibilities which has carried over to many of the functions usually exercised by management alone. The Joint Industry Board made up of labor and management in the electrical industry in New York City operates an employment office, an apprentice school, a college scholarship program, a resident educational center, a health center, a dental center, vacation, savings, retirement and housing programs. The clothing workers and manufacturers operate a joint insurance company. They also jointly finance an auditing office which may, both as a matter of routine and at special times, check the books of any manufacturer as well as the wage agreements between union and employer to see whether they conform to the contract in every detail.

It would be a mistake to try to spot a trend in any of these developments. Because the seamen's union controls hiring does not mean that the autoworkers, however farflung their demands may be, aspires to control hiring. Because the electrical union has achieved a high degree of joint participation in insurance and welfare programs does not mean that the steelworkers will change their program of leaving all these functions as a matter of principle in the hands of the employers. Unions differ dramatically from one another, because industry, leadership, labor markets, products and services differ, and it is these factors which determine what a union will be like.

I should like to explore briefly one more dimension of this analysis. Unions differ greatly over time. Unions today are not what they were 15 or 20 or 30 years ago. As recently as 1932, unions had no legal status whatever. They existed in a legal no man's land. Achieving recognition was a product of the exercise of solidarity in action through the closed shop, collective bargaining and the use of the strike when necessary. The Norris-LaGuardia Act gave unions an implicit right to exist and explicitly a right to do so without legal harassment through the use of the injunction. The NRA in 1933, the Wagner Act in 1935 gave unions the right to bargain collectively and outlawed the company union in the sense of a union dependent financially upon the employer. This expression in legislation of a public policy favoring collective bargaining and recognizing the union as the representative of the individual worker radically changed the role, the functions and the methods of unions. Yet history is bound to leave its mark. The unions' necessary reliance on self-help and

self-help alone in the days before these important enunciations of public policy on labor-management relations has left its visible traces in the modern union.

Let us take as an example the field of industrial medicine. In the old days, particularly in industries in isolated locations such as mining, lumbering or the maritime trades, two things happened; one was that the companies early developed medical departments, and then very often used them as a weapon in their war on the unions. The doctor in the silver and lead mines in the west during the period when they were organized by the Western Federation of Miners was expected to find ways of getting rid of the union agitator by declaring him physically unfit for work in the mine and hence ineligible to remain in the vicinity occupying a company house. The miners in the bituminous and anthracite coal fields were almost as anxious to be freed of the compulsory deductions for doctors' "services" as they were to get a checkweighman to enforce a loading ton of 2,400 pounds instead of 4,000 pounds.

The second development was on the positive side. Because many of these trades were hazardous, workers could not buy personal insurance against the hazards of their trade, even if they had been able to afford to do so. As long as 80 years ago the railroad unions set themselves up as beneficial societies, furnishing sickness, accident and death benefits to their members. Even today the railroad worker pays his dues in two sections. One amount is an insurance premium, the other his regular dues. His union actually has a bigger staff at national headquarters running its insurance company than handling its "normal" union functions. These vestiges of an older time and its bitter experiences still shape the way in which these unions go about their business and the way in which they look at the functions they will perform for their members. It is undoubtedly not accident that the United Mine Workers were the first union to establish a medical program so broad in its scope that it not only pays welfare benefits but has actually established a chain of hospitals, which care not only for the miner but for his family.

On the other hand, younger unions including the big industrial unions founded in the '30's have dealt with a different kind of situation. In many of the companies with which they came to deal, elaborate medical programs were already established. They have therefore directed their attention to supplementing services, increasing benefits, increasing coverage, and in some cases sharing in the administration of these programs.

Because these unions include semiskilled and unskilled workers, they have not always had the leverage for raising hourly rates. They have therefore directed their attention instead to pressing for legislation which would provide for various kinds of government programs whose effect would be so to raise minimum standards and to provide benefits. They thought of such an approach as helping their members in two ways; first by guaranteeing them a minimum level of health and income security, and second by providing a floor above which the union could build its demands.

The old craft unions regarded themselves as strongly self-sufficient and able to do without the help of government. The high degree of skill among their members, their control of admission to the trade and of hiring through the union, even today as in the past, enable them to establish such positions of power that they can achieve wages and conditions far above any minimums that could be set by legislation. The industrial unions, on the other hand, dealing with vast masses of workers, without labor market control and without the bargaining leverage which skill gives look upon government and legislation from a different point of view. The cooperation of such unions with government goes far beyond legislative lobbying to close cooperation in the administration of certain programs. In cases like those of the garment workers and the hotel trades in several cities, for instance, a close alliance has been worked out between the union and the state employment service in the operation of hiring halls.

We can therefore differentiate between at least two general attitudes within the labor movement in respect to government; between the unions which want, even in 1959, to be self-sufficient, using the strength of their position in the labor market to improve wages and conditions, and those unions whose membership has only the power of numbers and who feel themselves importantly assisted in gaining conditions for their members when government intervenes to set down minimum standards of safety in the workplace, and wages and hours at work, and to equalize some of the risks of unemployment, old age and health. These differences in attitude born of differences in power have a good deal to do with explaining the way in which unions will differ as they make demands upon the employer even in the field of medicine.

I mentioned earlier, the origin of certain unions' interest in medical programs. In line with the differences we will now expect to find between individual unions, we will not be surprised that circumstances in mining, in railroading, in lumbering, in the maritime trades, for

example, have focused the attention of the unions in these trades upon medical problems. The physical exertion demanded of these workers, together with the intensity of the labor-management struggles which have characterized these industries in the days before the law laid down certain ground rules and when battles were closer to armed warfare than to debate or negotiation, turned these unions' attention to the physical needs of their members at the same time that they realized that the employer could not be depended upon to meet them.

The introduction of workmen's compensation legislation even before World War I was supported by the most self-sufficient unions as the first necessary step in reducing the hazards to which workers were exposed in their employment and the losses which they suffered through industrial accidents.

At about the same time union leaders in the garment trades, imbued with socialism and viewing the union as an agent of social reform and of social service to its members, established the Union Health Center in New York City. Tuberculosis, the scourge of poverty, was an occupational disease in the tenement shops which housed the garment trades. Hence the International Ladies' Garment Workers, along with the railroad unions, the typographical union and the beneficial societies set up among the socialist, Jewish workers established tuberculosis sanitoria for their members. As government aid became available under federal and state public health and social security programs, many of these institutions were abandoned or modified. However, many of labor's health agencies have endured well into the modern period.

In the 1920's, it was not labor but management which undertook to provide all-embracing welfare programs. During this period labor suffered a severe set-back in membership, in prestige and in influence. The struggle between labor and management was no longer cast in the military battles of the Colorado and Idaho labor wars; they took the more subtle and refined form of open shop campaigns and "American Plans." Indeed management was so successful in waging war in this arena that it sought to insure its dominance by establishing medical services, profit-sharing, recreation and retirement plans, stock purchase schemes and industrial social service bureaus. Some of these programs often further insured against even the possibility of union penetration by having their administration set up ostensibly or actually some form of employee-representation plan. In this era, joint undertaking was at the behest and urging of management.

The depression, which had so many ill effects upon working people and business alike, had the effect in this particular area of wiping out profit-sharing and company welfare schemes. These could be and had to be dispensed with when times got tight.

The New Deal period saw a new attack upon the problems of health and welfare, this time derived from a new and altogether generally accepted notion of public responsibility for such risks and expenses. Along with the realization of old age and unemployment insurance came the discussion of a national health insurance program. Miss Frances Perkins, the Secretary of Labor at that time and the person chiefly responsible for getting the social security program drafted and through Congress, comments in her book, *The Roosevelt I Knew*, that a great moment was missed in not pushing a national health insurance program at that time when it would have gained public support and acceptance. Now, 20 years later, opinions will vary as to whether this opportunity was happily or unfortunately missed. Certainly at no point since that time has a comparably favorable opinion arisen to support such a program.

Whether it was good or bad that a national health insurance program failed to become a reality in the thirties, the fact is that its absence raised many problems with the unions, as to what kind of security against the expenses of illness could be found for working people.

The clock struck on this particular issue during World War II. The freeze on wages permitted the unions to ask for comparable improvements in the noninflationary and hence acceptable form of fringe benefits. The miners' union led off with its successful demands in 1945 and 1946 for a royalty payment on the ton of coal to finance a health, welfare and retirement program. Other unions, other industries fell rapidly into line — so rapidly, that now, looking back, it is hard to realize that within a couple of years the otherwise revolutionary proposal of employer-financed, union-managed medical plans was not only accepted but in full operation; had indeed become so essential a part of the paraphernalia of collective bargaining that no major negotiation today is thinkable in other than "package" terms.

Because other undertakings of John L. Lewis excited and alarmed the Congress, and because the feeling against labor was rising as labor grew rapidly in size, in power and in the scope of its undertakings, the Taft-Hartley Act of 1947 set many limitations on labor activities, and expanded the area in which employers might function in labor management relations. Among other new regulations laid down in the act was the one requiring that the employer, who financed

these plans, must share in their administration.

Many employers, either out of apathy or out of inability to function in the face of overwhelming power in the hands of a union's representatives, abdicated their responsibility for administration of these plans. As a result, not a large number, but nevertheless a dramatic series of instances, arose in which the union administrators were found guilty of corruption and mismanagement. The Douglas Committee which conducted the original investigations of these irregularities proposed salutary legislation, legislation which was approved and supported by the AFL-CIO and by most unions. By and large, that legislation has had to do chiefly with controlling the financial accounting for these programs, and has little to say about the kind of program or the kind of policy making which the joint trustees of these bodies are expected to undertake. In a word, the major problems still lie, as they should and as government intended they should, with the labor-management trustees who carry responsibility for them.

The trade union movement, in its entirety, has been the object of considerable governmental concern since the war. Regulation of the internal affairs of unions as well as of their relations with management has marked the efforts of Congress as a result of the disclosures of the McClellan Committee. We have not by any means yet seen the end of attempts to regulate unions, not solely in respect to their health and welfare or other financial activities, but in respect to all of their operations. Under the force of economic circumstances, under the pressure generated by their own internal dynamics, and with the rise in public concern about the way they operate and the power they are able to accumulate, unions have become the object of considerable regulatory legislation. This is a seven-league step from the time just 35 years ago when they were completely autonomous, self-help organizations.

These great changes have affected their objectives and methods. The new regulatory legislation will change them still further, and perhaps not in exactly the straightforward and direct way envisioned by the writers of the new statutes. One of the greatest results of the Taft-Hartley Act, which sought to take unions out of politics by putting a bar upon their contributions to candidates in federal election campaigns, was in fact to arouse their interest afresh in political activity. Even the old AF of L unions in 1947 immediately after the passage of Taft-Hartley formed Labor's League for Political Action, aping the more radical CIO's Political Action Committee against which Congress had legislated. The merger of the two federations in 1955 merged these two agencies into the present Committee on Political Education whose activity has become one of the major concerns of the new federation.

Certain other anomalies resulted from the attempts of the Congress to regulate union activity. One objective of the Taft-Hartley Act was to "free the union member from the domination of his union." The Landrum-Griffin Bill is even more clearly animated by the same purpose.

The effect of Taft-Hartley has been, however, to tighten the control of the national union over its locals and to centralize power rather than to decentralize and democratize it. Formerly many unions, particularly those operating in local labor markets, left their locals quite free to strike, to negotiate and to bargain, often not even requiring them to report to the national office what contracts they had made. Such a practice is almost unheard of now. Because of the requirements of "responsibility" put upon unions, the national office now insists on cosigning all contracts and wants to be sure that both the writing and the administration of the contract conform to national office standards of acceptability. It sends its representatives into local negotiations and into local union meetings; the national often formulates the demands and notifies the locals what they are. This state of affairs has resulted from an act which was written, among other reasons, to bring greater democracy to the local union and greater freedom to the individual union member.

It is safe to guess that the Landrum-Griffin Bill will have some of the same kind of effect. It is inevitable that the international union as the body which charters and in the last analysis is responsible under the law for the agreements and acts of its locals is going to have to be more firmly than ever in control of the management of the internal affairs of the local union which are the subject of concern of this act.

It is possible that this is precisely what the act should do or was even intended to do. It is not the way the act reads. For what my prophecy is worth, the act, in the end, is going to provide less freedom rather than emancipation of the member in his local union, simply because the national unions will have to be more concerned about and hence more closely observant of, more closely in control of, their locals. They will by the very fact of operating well within the limits of the law, observing all its sections and paragraphs as they are bit by bit clarified and interpreted, and by more tightly centralizing authority under a more bureaucratic system of control.

A description of the medical and hospital program of the United Mine Workers of America, Welfare and Retirement Fund, the largest labor medical care program for a specific group.

Medical Care—A Fringe Benefit

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UMWA Welfare and Retirement Fund
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Until about 1890 a laboring man in this country earned about one dollar a day. Of course, that dollar would buy much more than it will now. About this time in our history, a man named Samuel Gompers set about organizing workers on the basis that everyone was entitled to fair compensation for his toil and to some enjoyment in life. He organized labor on a just basis. The man who worked conscientiously had the kind of opportunity which was taken advantage of by many people who rose from rags to riches. Nowhere in history have so many received so much through opportunity, and returned so much to others through labor, as in these United States. The economics of the practice of medicine have been greatly affected by this country's change from a predominantly rural agricultural society to an urban industrial society.

As our society became more complex, it was found that when a serious illness arose, a family may be set back as much as a year's earnings. Since the early days of our history, people have joined together for the pooling of funds to meet the cost of unexpected illness or injury.

Medical care plans for industrial workers are not new, although they have come into prominence and have caused a lot of discussion in the last few years. Many medical care plans existed before 1900. In the old days, most of these plans were sponsored by management to provide comprehensive medical care in isolated areas where medical personnel and facilities were not readily available. The oldest management medical care plan in existence today dates back to 1868. The first union health center, that of the International Ladies' Garment Workers Union, came into existence in 1913.

The years have seen changing disease patterns, technical advances in medical care and a wide application of the insurance principle in providing payment for medical care. From the patient's point of view, medicine has become increasingly efficient as well as expensive and complex. Today's worker is very much aware of his need for a comprehensive and coordinated health service and relies on prepayment arrangements to take care of its high costs.

Developments during and after World War II helped to stimulate the growth of union health and welfare programs under collective bargaining. With the wage and hour freeze, fringe benefits assumed great importance and the rulings of the National Labor Relations Board, and later of our courts, that health and welfare funds were a subject for collective bargaining, caused many labor unions and employers to cooperate in setting up such programs. These medical care programs may be labor sponsored, joint labor-management sponsored, or entirely management sponsored. They may cover all the way from less than 100 employees to something in the neighborhood of one million beneficiaries. They may cover only the worker himself or the worker and his dependents. The plans provide a variety of services, all the way from purely diagnostic services in a union health center to complete in-hospital and office care to all members and dependents.

Most unions are attracted to a comprehensive closed-panel medical service plan on a prepayment basis because the cost can be covered by

a predetermined premium and the competency of the participating physicians may be assured. There is little or no enthusiasm for the insurance company cash indemnity approach, although many workers today have the typical hospital-surgical indemnity policies. Under these policies, they have the problem of limited coverage for themselves and for their dependents. With higher cost and increased utilization of these programs, has come the need for higher premiums or reduction in benefits. Some physicians unfortunately seem to look on insurance as ability to pay, so, have taken advantage of it to raise their fees.

Some unions have purchased coverage through local direct service plans such as the Kaiser Health Plan on the West Coast, or the Health Insurance Plan of Greater New York. In a few places like San Joaquin County, California, the medical societies have set up their own foundations to negotiate service contracts with labor unions. Other unions have supported their own health facilities and some have set up union health centers. One of these in Philadelphia is now proposing to build their own hospital. The union health centers have made a deep impression on the entire labor movement.

Organized labor's health goal is relatively simple. Labor wants comprehensive medical care on a prepaid basis at cost within everyone's reach, for every worker and his family. As used here, comprehensive medical care aims at the prevention of illness, the care and relief of sickness, and the promotion of physical, mental and social health of the individual laboring man and his family.

With a greater demand for service benefits, management is becoming more concerned with the factors that affect the cost of health benefits and how they can secure more effective and efficient use of management and labor-management administered medical care funds. Management has long recognized the value of a healthy working force in increased efficiency and in keeping absenteeism to a minimum. In most cases, they are only too willing to help secure good medical care for their employees.

The medical care program with which I am associated, that of the United Mine Workers of America Welfare and Retirement Fund, is the largest of such plans in the country and covers one million beneficiaries, bituminous coal miners — working, retired and unemployed — and their wives, dependent children and certain other eligible dependents. It is the plan that has aroused the most controversy in the last several years.

The Fund was first established in 1947, pursuant to the Labor-Management Relations Act of that year, as an irrevocable trust to be located in Washington, D. C. In conformity with terms of the trust agreement and with federal statutes governing trusts, the fund is organized and administered by a board of three trustees as a separate entity, independent of the union and the coal operators.

The fund revenues derive from royalty payments on each ton of coal produced for use or sale by coal operators signatory to the agreement. This royalty payment is, at the present time, 40 cents per ton. Operations of the trust fund are on an industry-wide basis and its authorized benefits reach beneficiaries in 27 coal mining states.

The medical and hospital program of the UMWA Welfare and Retirement Fund can claim certain distinctions: (1) it is the largest labor medical care program for a specific labor group under the direction of physicians, both in terms of money spent and people served; (2) it is a medical care program charged with the securing of the best quality of medical service available; (3) it is based on the principle that the cost of maintaining the manpower in the industry in a workable and healthful condition is just as much a part of the cost of production as steel rails, taxes, lubricating oil or any other item that goes into the cost of production; (4) it has been investigated by Congress, even before the McClellan Committee, and given a clean bill of health; (5) some of its actions have been commended in the *Journal of the American Medical Association* in these words, "Labor leaders, labor union medical administrators and physicians everywhere can learn valuable lessons from the way in which organized medicine and the United Mine Workers have sat down together to iron out a host of difficult problems"; (6) it has received a citation for distinguished service from the President's Committee on National Employment of the Physically Handicapped; (7) it has received an award from the National Rehabilitation Association for courageous and inspirational action in pioneering rehabilitation services for the severely handicapped; (8) it has received the coveted Lasker Award given by the Mary and Albert Lasker Foundation for humanitarian service which exemplifies the best in medicine, in social accomplishment, and in social consciousness; (9) a spokesman for the coal industry has expressed satisfaction with the fund stating, "Management has benefited from the medical program and its role of stabilizing employment and preventing migration of skilled workers in periods of curtailed production"; (10) the hospitals of the Miners Memorial Hospital Association have been given approval by the Joint Commission

on Accreditation of Hospitals and approved by the AMA for residencies; and (11) the American Medical Association and numerous state and local medical associations have, at times, condemned it.

The benefits provided by the trust fund are authorized by the trustees. The trustees have full and final authority to revise, suspend, or terminate the benefits at any time. The trust fund pays the entire cost of all the benefits it provides. Eligibility for benefits is determined by the trustees.

At present, benefits authorized consist of pension benefits, hospital and medical care benefits, widow and survivors benefits and mine disaster benefits. The hospital and medical care benefits are made available to the extent and in the manner determined by the director of the fund, through medical, health and hospital service. The fund's executive medical officer has full and final decision over the physicians and hospitals for whose service trust fund payments will be made.

Under the medical care plan, the bituminous coal mining area is divided into 10 operative areas, each with an area office similar to the one in Louisville, Kentucky, under the direction of a physician — the area medical administrator. It is his job to arrange for the purchase of service within his geographic area. He is responsible for every dollar of trust fund moneys spent for purchase of service and to vouch to the trustees of the fund that such service purchased for any beneficiary is needed, of high quality and at a just cost. In theory, all services rendered for fund payment are directly authorized by the area administrator or subject to prior authorization in one form or another, without which the fund assumes no responsibility for payment. The individual beneficiary, as a patient, has no vested interest such as an insurance program may offer.

The benefits available under the plan are (1) hospitalization for as long as medically indicated, (2) services by a physician in the hospital, (3) specialist services in the office or out-patient department of a hospital, (4) special duty nurses, (5) certain relatively expensive drugs needed for treatment of chronic conditions, and (6) diagnosis and treatment of psychiatric conditions when prognosis indicates that short term therapy will be adequate. The fund does not pay for (1) home and office care of a general practice nature, (2) ordinary drugs used outside the hospital, (3) services that other agencies are obligated to provide, or (4) dental service.

In 1952, the Miners Memorial Hospital Association was incorporated and a chain of 10 hospitals have been constructed in the east Kentucky, Virginia, West Virginia coal mining area. Seven of these hospitals are located in Kentucky. They have now been in operation for almost four years. The hospitals are organized on a regional basis with three central hospitals and seven satellite hospitals. The smaller hospitals have a minimum full-time specialist staff of a surgeon, an internist, a pediatrician and an obstetrician-gynecologist, with a number of general practitioners. The large hospitals have a much larger staff of specialists with many of the subspecialties represented. The specialists at the large hospitals are available on a consultant or referral basis to the physicians in the smaller hospitals. These hospitals are all organized as open staff community hospitals and any physician in the area who applies can be admitted to staff privileges in line with his training and experience. The hospitals have all been approved by the Joint Commission on Accreditation and two of them have been approved by the AMA for residency training in surgery and medicine. At the present time, there are over 200 physicians on full-time salary basis at the hospitals. Each hospital has a staff educational program to which all physicians are invited. A number of research programs are being carried on in the hospitals.

Why were the hospitals built in this area? Kentucky's eastern mountain counties have long been a medically underprivileged area. Before the construction of the Miners Memorial Hospitals, the 44 counties in this area of Kentucky had one-third of the state's population but only one-fifth of the state's doctors. Pike County had one doctor for 3,121 population, Floyd County had one for 4,458, Perry one for 2,451, Letcher one for 2,470, and Knott one for 5,068. In comparison, Jefferson County, with Louisville, had one for 650 population and Fayette, with Lexington, one for 510. At the present time, even with the addition of the physicians in the Miners Memorial Hospitals, no county has more than one doctor for 1,500 population.

What about existing hospital facilities in the area? The area covered by the Louisville office had four church and eight proprietary hospitals. Only two hospitals in the entire area were open staff. None were approved by the Joint Commission on Accreditation of Hospitals. Most of the proprietary hospitals operated with a medical staff of two or three physicians and a nursing staff of one to three registered nurses, with the remainder of the staff being locally trained. There had not been one cent of Hill-Burton money spent on hospital improvements in the coal mine area of east Kentucky.

With the opening of well equipped, well staffed

facilities, the fund decided not to pay for care in hospitals of the area where adequate service was available through the new hospitals. We continue to pay for use of several hospitals of the area where experience indicated a need and all physicians of the area were offered staff privileges in the new hospitals. This discontinuing of payment to some hospitals has met with disfavor as you might expect and has caused at least five small proprietary hospitals to close their doors. Most of these had paid for themselves several times over. Although they had served a purpose, they were no longer adequate for present day medicine.

In four of the counties the county medical society has refused membership to the full-time staff physicians in the Miners Memorial Hospitals located in these counties. Many of these same county medical society members are on the hospital staffs and participate fully in the medical program of the fund.

In 1954, the American Medical Association appointed a 15 member commission to make a study of medical care plans. This commission reported to the December, 1958, Interim session of the AMA. No action was taken at this time but the report was held over for the July, 1959, meeting and copies were distributed to all members. The House of Delegates at Atlantic City in June, 1959, accepted the report for information only, but adopted the recommendations with only slight changes. The reference committee report stated, "The Commission concludes that there is no generally held opinion declaring that participation in closed panel medical care plans would render a physician unethical."

The following statement on free choice of physician was adopted. "The American Medical Association believes that free choice of physician is the right of every individual and one which he should be free to exercise as he chooses. Each individual should be accorded the privilege to select and change his physician at will or to select his preferred system of medical care and the American Medical Association vigorously supports the right of the individual to choose between these alternatives."

Before the advent of the fund, the working miners and their families in many places had no choice other than the camp physician employed by the company. Unemployed and disabled miners with no income had no choice other than a physician who would accept them free of charge for such limited treatment as he could afford to offer.

Contrast this situation with the free choice of physician which now prevails through the medical benefits which the fund has made possible. Instead of one physician, a beneficiary now has a wide free choice from the many physicians whom the fund pays for services. More than 7,000 physicians were paid by the fund during the past year. In many mining communities the fund at present pays any physician whom a beneficiary may choose. In other communities he has free choice from among a majority of physicians who desire to serve beneficiaries. If necessary, a beneficiary may be referred to any of a large number of specialists with whom the fund has made arrangements. Beyond this, he may be transported at fund expense to one or another of the great medical centers of the country where a team of physicians, if necessary, will be paid by the fund to provide the highly specialized care that an individual case may require.

During the past 10 years the fund has made direct payments to many thousands of physicians of over 120 million dollars. Its payments to hospitals have amounted to more than 180 million dollars. More than half a million beneficiaries have received medical care as hospital in-patients. In addition, over eight million office and out-patient clinic visits to specialists for diagnosis and treatment were paid for by the fund.

It would seem that, by increasing the free choice of physicians from a few hundred to many thousands, and placing no limit upon the extent to which the highest quality of service will be provided, the U.M.W.A. Welfare and Retirement Fund has qualified as a leading collaborator in recognizing the value and expanding the scope of free choice of physicians.

Let me say that I believe that third parties are inevitable in modern medicine. The various techniques of medical practice today (solo, group, general practice and specialist) are all well established, ethical and legal, and all are competent to provide excellent medical care. "Fee for service," "prepaid care," "salary contracts" and "third party" are all ethical and acceptable to organized medicine. I do not see why they cannot all exist peaceably and come to some agreement on differences of opinion that might arise.

The industrial physician, in order to fill his role as an advisor to management in medical matters, must keep up with developments in the medical care field. The industrial physician should be prepared to assume a position as a liaison officer between medicine and labor in assisting them in understanding each other. Medical care programs must be given a chance to develop along ethical lines. No problem can be solved well if those most competent to advise hang back and ignore it.

MEDICALLY BASED JOB CHANGES

—a Panel

• WILLIAM B. MACGREGOR
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• ANTHONY L. GIGLIO
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Survey of Company-Union Agreements

W. B. MACGREGOR

A survey was conducted among 10 or 12 leading companies in the Troy, New York, area, employing 400 to 2,000 workers, to determine their experiences with medically based job changes, and to check the terminology used in company-union agreements on the subject.

This group of industrial concerns contacted represent a good cross section of both light and heavy industry, locally based companies, as well as several components of large multi-plant organizations such as Ford. I chose only those under company-union agreements. I found that all of them, from time to time, have encountered problems involving the need for changing an employee's job because of medical limitations. The number of cases arising among the various firms varied in number, depending on the size of the plant.

There are two main categories of cases usually encountered in connection with medically based job changes. The first one deals with occupational, or nonoccupational illnesses or injuries, which may result in an employee being left permanently or temporarily in a condition so that he is not able to perform his regular job. The second category consisted of cases arising as a result of employees simply becoming infirm or losing their deftness, as a result of advancing age. In fact, I found in two or three instances that cases arising from those causes exceeded those in the first category.

It would be possible to list a third category by including the industrial workers on layoff status becoming either ill or involved in an accident so that they could only perform a job suited to their limitations. Few cases arise from this group.

After completing this survey, I came to the conclusion that the problem faced by industrial management in connection with medically based job changes will probably never be classified as one of the major difficulties of industrial enterprise. A case could be a bit of a headache from the standpoint of having to find a place for a particular person, but those situations are few, and I don't think there will ever be serious labor-management relation problems resulting.

It is possible to find a case where a disabled employee is not able to work at anything or is limited to a specific type of work, such as a blind man who would have to work with his hands from a sitting position. The average firm seldom has very many jobs available to fit these disabilities. However, I think the industry generally finds a way suitably to employ their average disabled worker in a productive manner.

My findings also established that among all the companies the language found in the company-union agreements which I checked was quite limited on the subject. As a matter of fact, one company-union agreement checked did not contain a single word on the subject.

Several dwelled more at length than others on procedure to follow or on some particular item referring to the manner in which a job would be changed for certain individuals, or perhaps on how long an employee could stay on a definite job at a particular rate. Except for

things like that, the terminology found in the various agreements was limited.

One company agreement stated, "Transfers due to disability and age shall be determined between Management and the Union." Nothing more was said. Another read, "An employee returning from medical leave of absence will be entitled to the job he can perform in line with his seniority."

Still another provided, "If the employee returns to work at the end of his leave, he will be assigned to his former job if he is capable of performing it." And then it continues, "He will be transferred to any open job he is capable of doing."

When agreement language is limited like this, obviously, if the program is going to be successful, a lot of the procedure has to be based on company policy and past practices established or agreed upon by company and union representatives. Usually, most cases which are not specifically described in agreement language are settled on the basis of merit, usually after discussion with the union. In speaking of union accord, the President of Local 930, UAW-AFL-CIO, the Green Island Ford local, authorized me to state for him that in his opinion at our plant everything within reasonable limits is, and has been, done to place employees on jobs which they are able to do in line with their seniority in connection with medically based job changes.

Regardless of the exact wording found in the various agreements, there seems to be a tendency on the part of most company representatives taking care of these problems to often go a little bit further than the bare contract language. This is found particularly if the person involved is a long service employee.

In virtually all company-union agreements checked it was noted that seniority was definitely a determining factor as to how long an impaired employee could be kept on a different job depending on his recovery. In the event of reduction in force due to schedule changes, in practically all cases, impaired employees could and would be affected the same as unimpaired employees depending entirely on when their seniority dates came up. There is nothing unfair in this since if they were not affected the same as unimpaired employees, one would be treating them as a preferred group, giving them rights that no other employee would have.

In one company agreement I found an exception to what I have just stated. In this instance the agreement gave management the right in cases of occupational injuries (compensation cases) to by-pass the individual affected in force reductions at the discretion of the company. There was a requirement that such cases must be discussed with the local union before by-passing, but it was primarily for purposes of notifying the union and not a case of requiring their approval. There was a sensible reason for this type of discretionary authority. About the only time this right was found to be exercised it was done to avoid laying off a particular employee who had been hurt in the company, and because his limitations would have required him to become a public charge. In the few such instances known that the right was exercised, the union representatives concerned also had given their full accord. It wasn't a case of simply carrying the man. The work he was assigned to do was productive and he was able to do it and at the same time he was able to lead a decent life.

Three companies contacted indicated that they had agreements which stipulated that impaired employees moved to other jobs, particularly lower rated jobs, could retain their higher rates for certain periods of time. However, all stipulated that if the condition continued beyond a certain point the affected person would be reclassified to the lower rate and continued on for as long as the disability continued. The bulk of the companies contacted, however, followed the practice of reclassifying the affected person to the new job and lower rate, if that were the case, at the time of transfer. In practically all companies contacted, the personnel handling these matters indicated that they kept specific jobs separate from the rest which were utilized for the most part to accommodate these impaired employees. Some of the company representatives even referred to them as rehabilitation jobs. I have reference to such jobs as porter or janitor work, stock counting, sitting down jobs where one could work only with his hands, etc.

The survey also revealed that medically based job changes were recommended only by the medical department and action taken only after such recommendation was made. One agreement indicated that the employees' physician must concur with the plant physician but in others no stipulation was found. Frequently the plant physician would contact the private physician to get more knowledge of the case and as a result be in a position to make a more realistic recommendation. I am sure that such a practice would make sense to all of you here.

It was found to be a fact, however, that in most instances where a plant physician would contact the private physician, the plant physician would make the final decision as to the recommended disposition of the case. I am personally in accord with that type of thinking because the plant physician, in the case of compensation hear-

ings or other instances where inquiry need be made, would have to take full responsibility for the recommendation even though he were influenced by the judgment of the private physician. He could not limit liability by simply stating that he didn't act on his own judgment.

There are always going to be those occasional instances for which little can be done. One's impairment may be such that no productive job can be found for him. Or a company's operation may be such that there are no jobs which handicapped persons can perform. Or it might be that a particular plant has so many impaired persons that they simply do not have enough jobs to go around, and those that they have are occupied by impaired persons with greater seniority than the one whose placement is being attempted at the moment. Generally those people are laid off on what we at Ford call medical recall. This term means that the person will be recalled just as soon as work becomes available that he is able to perform, or when his impairment is adjusted and he is able to return to his regular job. My findings revealed that few people were on medical recall lists.

One of the companies contacted provided "make-work" jobs for impaired employees. I mean by the term "make-work," the creation of a job which would permit an employee to report to work and draw wages. I personally am not in accord with this because I do not believe it is good from a psychological standpoint for anyone to be so treated. If a man cannot be used productively, he should be placed on medical recall until he can be.

I have tried to show you the actual practices I find prevailing today among the leading industrial establishments in the tri-city area. My findings have convinced me that in this area, at least, labor and management work well together and they have accomplished a lot through the years. I don't know what percentage of company-union grievances, if any, have come to arbitration on this subject but my guess would be that they have been few. I don't think that estimate is likely to change. I think it is becoming generally true of industrial managements that they try to take care of their own disabled employees, particularly those with long service.

Employer-Union Medical Contracts

A. L. GIGLIO

One of the biggest problems we have today is that of the small employer as he deals with health. It is true that the big employer has a plant physician, and may practice some form of preventive medicine, but we forget about the small employer with 100 employees or less. That employer worries about the cost of workmen's compensation, and reads all material he may receive from an industrial association to keep his costs down, but pays no attention to health costs, because of his inability to pay for them.

One of the problems we find is that in many plants throughout the state of New York there is not even a first-aid attendant. We are unable to enforce any regulations because in the state of New York it is not mandatory to keep a full-time attendant, registered nurse, or plant physician.

In all contracts we cover safety rules by including safety and health clauses, and sometimes we even include, "how to keep the driving areas free from accidents." But when we protest the action of the violation of any health rule, the employer claims that to correct the bad lights, or the fumes in the plant would cost the company thousands of dollars. This situation could result in the loss of jobs because of the employer's inability to take the corrective action, due to lack of money, or lack of understanding.

It pleases me to hear about industries that are able to afford occupational health programs, but should we forget about the ones that are not able to have these programs? One of the things needed in small plants are publications and education regarding the cost to the employer of seeing to it that his employees feel good, thereby making the worker produce for the employer.

With industry changing, new chemicals, that even management knows little about, are used by employees. This is true not only of small employers, but, in many cases, of large employers in the state of New York.

I have heard that it is management's func-

tion to supervise and control its medical department and preventive industrial medicine programs, but is it wrong for the worker and union to participate in conferences enlightening the worker and union on occupational diseases, or the dangers of handling different chemicals, or the possibility of securing polio and other inoculations that may prevent him from getting sick?

When we of the union movement educate our people in the direction of health programs, we are accused of trying to legislate into our state and national governments laws that will give us health protection.

We are accused of lobbying on many issues that pertain to labor laws, but we never hear talk about labor lobbying for a healthier American. We try to bring to the attention of our state and national leaders that a better occupational health program means a better American. An American worker, organized or unorganized, has a desire for good health. American industry wants good health. Why not get together on a cooperative basis and all work for healthy Americans, because then we will be strong and fight any evil forces that might try to harm us.

In occupational health, unions are not trying to establish themselves as knowing everything, but I am wondering what the position of the doctors would be if the unions started some form of a clinic for occupational health. What reaction would there be to help them set up a program? I have found that the old specialists, the doctors, who have been in the profession for 25 or 30 years, have been more than glad to cooperate; it has been the young doctors that felt they have spent many years in school and want some of their money back in a hurry. They have disregarded our need for service programs. We feel that with service programs the financial responsibility for the health of the individual and his family may be given more attention by doctors cooperating.

One of the biggest stumbling blocks in contract negotiations has been in reference to the health clauses, and in trying to get some form of agreement in a contract that will provide a good health program for the worker. A good health clause does not appear in many union contracts. Too many times the health problem in the labor-management field is misunderstood.

I am hoping that with future industrial management teams safety and health clauses will mean more than just complying with disability insurance or, possibly, workmen's compensation.

From Mosquito to Man

The 1959 outbreak of eastern equine encephalitis in New Jersey was not the first and only such epidemic reported in this country. There have been three previous outbreaks, the first of which was in Massachusetts in 1938.

The virus, which is carried by mosquitoes, is usually transmitted to birds—seldom to men or horses. Thus, though the virus produces a high mortality rate in man, causing death in two out of three cases, the incidence is relatively low.

Although a vaccine has been developed for prevention of the infection in horses none has been available for man except on an experimental basis. One reason for the delay in the development of a vaccine is the relative rarity of the disease.

The Anticipated Effect of AUTOMATION on Industrial Medicine

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It is probable that the introduction of automation, closed equipment and control at a distance will reduce tremendously medical problems where they are related to chemicals.

Industrial medicine is a comprehensive work and covers a variety of forms of medical practice. The variety is as great as the variety of operations in the specific industries in which medical service is given. In predicting what might happen to industrial medicine should automation become a common fact in industry, I can only speak with any degree of accuracy for the chemical industry in which I spent some 24 years of service, and any extension to other industries will, in legal terms, have little probative value.

I think we have learned in recent years that chemicals are tools, tools of industry, tools of agriculture, tools of the arts, tools of the home. The chemical manufacturing industry is really a tool-making industry, but these tools have properties not associated with ordinary tools. If I take a hammer, a chisel, or a carpenter's plane, and place it on a level surface, I don't expect it to move from that surface except as a result of human agency or an earthquake, a high wind or an atomic bomb blast. That is not so with chemicals. From the very moment of their being born in a test tube or in a big reaction kettle in industry, they tend to move away from the place at which they were born. Gases diffuse; liquids flow or diffuse through walls of containers; solids can even diffuse through solids, or, if in fine particles, can be wafted by breezes through the atmosphere as dusts. Unless proper efforts are made to contain them, they will get onto or into the bodies of the workers in the industrial environment responsible for handling those chemicals or for being in the neighborhood of their handling. As a result of this contact with, or entry into, the body, there may be produced conditions adverse to good health of the worker.

There has been some discussion about the real duties of an industrial physician. The major duty of an industrial physician in the chemical industry is to know his plant, to know the operations conducted in it, to know the conditions under which the operations are conducted, to know the points offering hazard to the worker as a result of the possibility of chemicals getting onto or into his body, to give advice to management as to how best physically he can remedy those conditions, or to protect the worker and to set up a program of constant observation of the worker so that any adverse change in health produced by the chemical may be stopped before it results in actual injury to tissues or organs.

That is an ideal function of an industrial physician in the chemical industry, but it is not new. It is not my idea. It was formulated, certainly, 42 years ago when Dr. William O'Donovan, Medical Officer of the British Ministry

of Health, wrote an introduction to the publication of the British Medical Research Council on the subject of trinitrotoluol poisoning. That publication was issued after a symposium of the Royal Society of Medicine, because injury to workers from this poisoning had almost brought disaster to the British war effort. Effect on British employees was as high as 16%. I know, from being in England, that in the British Army, men were withdrawn from the fighting lines in France to replace workers in the chemical industry in England.

Dr. O'Donovan stipulated what should be the real duty of an industrial physician.

What does that have to do with automation? Chemicals can get onto or into the bodies of workers handling them or in the neighborhood of the handling. The most effective way to prevent that happening is to use closed equipment, a closed system; if possible, a continuous system of manufacture, of which only two points are open, the point of introduction of the chemicals to the reaction kettle, and the final point of exit of the chemical — the final product — into the package.

All through the years, in attempts to practice this form of preventive medicine, a wise physician has always suggested closed equipment. It has not always been practicable. It has sometimes been dangerous. I remember that in 1936 and 1937 I was investigating a hazard of dynamite manufacture in this country and abroad. I was new then to industry. I had been in academic life as a pharmacologist, and I suggested that a certain piece of equipment should be closed. The dynamite industry was one of the most dangerous of any form of chemical industry. In fact, because of their high safety standards, very few accidents occurred. One of the fundamental principles of the safety program in that industry was that the worker should always see what he was doing and that nothing should be closed.

Top management agreed with me, and we began to close equipment in these plants, but it was a source of great apprehension to plant management and superintendents of operation, and for a number of years, any untoward event in a dynamite plant was apt to be attributed to the fact that man couldn't see what he was doing because of the covered equipment. In 1938, I was at a Conference in Germany on the hazards of the dynamite industry with some British experts in the field, and we visited a plant and saw a fully closed machine for the mixing and manufacture of a form of dynamite, which was powdery and contained 6% nitroglycerine. I remember standing by and looking at it with interest. The British experts were scared. They expected it to blow up at any moment.

What has happened? In the last five years, more than one of the major dynamite manufacturers in this country has introduced an entirely closed equipment. Nitration of glycerine, a very tricky chemical procedure, is continuous. The nitroglycerine is made, is neutralized, is washed in closed apparatus. The final dynamite is mixed with the inert materials, and, finally, it is packaged. Almost all operations are in closed equipment.

That is automation, automation almost in an extreme degree. That sort of automation, however, is not new. Such automation existed in the manufacture of tetraethyl lead as long ago as 1930. Proper automation, closed control at a distance, is the dream of the industrial physician whose job is to protect workers against contact with hazardous chemicals.

This automation can be introduced in other than big plants. One of my jobs is to inspect a plant in New Jersey, and the management of the company has sent me complete descriptions of the operations. I find that the plant, which is a small one in the chemical industry, is completely automatic, with electronic automation. That makes consultation and advice in preventive medicine much easier than it would be in a small plant which is doing what the old pilot used to describe as "flying by the seat of their pants."

It is possible, and from the medical point of view, probable, that the introduction of automation, closed equipment, and control at a distance would reduce tremendously medical problems where they are related to chemicals. That, however, will not eliminate industrial medical practice from such industries.

No equipment lasts forever. Metals, like humans, age. Automatic controls also fail, although now, of course, one can make packaged units and slip in a printed circuit, in place of one that has failed, without tearing down an operation. Pipe lines and reaction kettles need to be cleaned, and any closed continuous operation must be such that there is no fouling of pipe lines, no fouling of reaction kettles, because automatic control depends upon the existence of certain pressures and temperatures, which are conveyed back by either electronic pressure devices or hydraulic pressure devices to control panels.

Maintenance of these circuits will require maintenance men. Those maintenance men will be somewhat more skilled than those used at present, but they will be relatively few in number. Their hazards will be limited, probably, to acute exposures, rather than to the possibility

of a chronic small day-by-day intake of harmful materials into the body. So the industrial medical practice in an automatic plant in a chemical industry will involve seeing to it that the maintenance crews are in good health, that they are provided with the latest personal protective devices, which they will always have with them.

That, incidentally, will mean inventing new devices, and seeing to it that both men and devices are frequently checked, and certainly after any episode of acute breakdown in which the men have been exposed to chemicals. Chronic poisoning, which is the bugaboo of medical men in the chemical industry, will diminish. What will be the effect of a changeover to automation? Here is an example which I observed.

In the early days of the heavy chemical industry, the manufacture of hydrochloric acid, as it still does, consisted of the addition of sulphuric acid to common salt in a reaction kettle and cooking them together to drive out hydrochloric acid, leaving a residue of salt cake, which often was still hot when the kettle was to be cleaned out, and which contained within it, hydrochloric acid as a gas.

The cleaning of the kettles was done by manual labor. A man would shovel out the salt cake, put it in a wheelbarrow and wheel it to a dump. It expelled hydrochloric acid fumes, so one could not see through the green smoke even a few feet away.

Curiously enough, the worker doing the job very seldom coughed. He did not seem to be irritated. We had plenty of records of examination of the lungs and eyes and so forth. It did not produce any injury. In the last five or six years, that process has been made automatic in some plants. The salt comes in a freight car to a loading point, and then is carried by a conveyor to a weighing apparatus, and from the weighing apparatus into a reaction kettle.

The sulphuric acid is put in by controls at a control panel separated by a barrier. The reaction is carried out. The temperature is controlled. The salt slake is dumped and carried away by another conveyor. No hydrochloric acid gets into the air.

For the transfer from the old hand labor to automation, the men who worked on the old operation were carefully studied by management to see which would be suitable for this new job. The high proportion of them were given training and were used in the automatic operation. But the plant manager then faced a peculiar problem. These men had a control panel with a series of meters, which they were taught to read, showing what was happening in the various reaction kettles, showing when a new charge was put in, but for many weeks, they could not refrain from walking around in back of the barrier to see whether the thing was working.

They were suffering from frustration; and that is how the plant manager described it. They didn't believe what their eyes showed them. These were not men with a high degree of education. They were doing this job and doing it well, so one might say, "Well, this is just the reaction of a group of uneducated men." It so happened that less than a month later I went to the engineering research laboratory of a big automotive plant. In the section of that research laboratory devoted to the study of fuels, there are a series of modern motors attached to dynamometers being studied by engineers. For safety's sake, the motors were separated from the observation point at which the engineer stood. He could use all types of electrical devices, including microphones, attached to parts of the motors to detect the sound of operation of various parts of the motor. But the engineers too were frustrated. They would not believe the noises they could hear over the microphone. They had been so accustomed to telling whether a motor was running properly by listening to the sound and frequency of noise produced by it, they insisted that management break through this safety barrier and put in panels which they could open, so they could listen to the motor. They were as frustrated by complete automation as were the boys who were uneducated, who went from a labor job to looking at panels in the manufacture of hydrochloric acid. This frustration, probably, will pass away.

What situation do we face, then? Everybody thinks that, eventually, automation will be merely a series of operations remote from a central control room with nothing but panels around the room and people pushing buttons. That is the case in some parts of atomic energy plants for good reasons. But that will not be the case, certainly, in many chemical plants. There will not be innumerable panels.

A lot of people have the idea that a man will get dizzy watching that needle here and that needle there. As a matter of fact, the British have investigated and published papers on that situation. I have not read anything that has come to any definite conclusion as to whether this situation will lead to tremendous fatigue. I think that anyone who has seen the control panel of a Super G airplane or any big modern airplane will become alarmed at the number of meters in front of the pilot and would think that the pilot would become tremendously fatigued looking at all these meters, each one reporting what is happening in the heart of

the hydraulic system or a meter for recording outside radar microwave signals.

So far as I know, apart from some suggestion in British literature, the business of watching a lot of panels has not led to tremendous fatigue.

What about the monotony of this sort of thing? Monotony can be serious, medically. Monotony can lead to stupid actions, which lead to accidents. A few years ago, in a meeting of the Delaware Safety Council, a Pennsylvanian, who was quite a famous manufacturer of pretzels, gave a little talk on safety in his plant. He had been extremely proud of the fact that the girls he employed in his plant bending pretzels (they are tied in a sort of Staffordshire knot when the dough is wet) were all high school graduates, but he said they had a tremendous incidence of minor injuries.

He finally came to the conclusion that it was due to the monotony of the job. The girls could be doing this sort of job and be inattentive to anything going on around them. When asked how he solved the problem, he said he began to employ high grade morons.

Monotony may be a factor, but having seen many of these panel systems associated with automatic operations in the chemical industry, I doubt whether that will be so.

A chemical engineer is interested in seeing what is happening in a reaction. In automation in the chemical industry there are charts and explanations on the panels which allow one to watch everything that is going on in every part of the plant, so I do not think that fatigue and monotony will be serious problems. However, there is a serious problem ahead in some countries. As production increases, pure manual labor is replaced by automatic devices. Undoubtedly, there will be a reduction in the hours that men need work in industry. It has come in this country much earlier than abroad.

At the I.L.O. conferences on the chemical industry held in Geneva every two or three years, the workers of Belgium and France and Great Britain are asking for a 40-hour week. The workers of South America and Central America are asking for it, and they should get it, but there is, to some degree, a hazard in reducing the in-plant time too greatly.

A man actually only spends 40 hours a week out of 168 hours of his life in the operative parts of a plant; frequently much less.

The accident rate at home for workers in the chemical industry, as reported by the Manufacturing Chemists Association, is five to 15 times as great as it is in industry. It is a peculiar thing that attitudes toward safe usage of tools to watching one's step, to leaving clear passageways and so forth, would seem to be instinctive now in many men in a plant, but seem to be sloughed off the minute they get into their automobiles and begin to drive away from the plant.

There is another phase of shortening of working hours which can lead to difficulty. Not necessarily in all cases for economic purposes, but merely to keep themselves occupied, many men are taking second jobs. They are either working for themselves or they are working for small operators, often in hazardous jobs. The small operator has no idea of safety. He has never been taught anything about it, and, of course, he has no medical service.

At the present time, in the chemical industry, without complete automation, and with the ever-present problem of protecting workers against contact with or entry of hazardous materials into the body, this creates a serious problem for the industrial physician. Many a man comes into the plant on Monday morning really not fit to face the hazards which might exist in his job in the plant. The control of that degree of unfitness is not at the moment within the area of discretion of management.

This is a field in which there is need for much education. It is a serious matter. It cannot be laughed off, for accidents — fatal and nonfatal — away from plants, on highways, in homes, are the major cause of serious permanent injury, and by permanent, one can certainly include death.

Automation will give greater control in the chemical industry and in industries using chemicals that are hazardous to workers. It will slightly modify and certainly assist the activities of the industrial physician, but it will not solve the major problem of ill health due to out-of-plant activities.

Here and in England it is not more than 12% to 15% of the industrial population which is involved in 75% of the minor or major injuries. It is about the same percentage which is involved in 75% of the loss of time due to sickness, and I think that recent surveys of the usage of Blue Cross and other plans and the impairment of funds by too frequent use of hospitalization is the result of the hospitalization of some 12% to 15% of the contributors to those plans.

IMPROVING MEDICAL SERVICES

Through Labor–Management Relations, Legislation, Training and Education

• GEORGE BROWN
Executive Secretary
Committee on Safety and Occupational Health
AFL-CIO

Safety and occupational health are in danger of being talked to death. Everyone confers, and they meet, and they discuss, and they go home and nothing happens. Therefore, one of our goals should be to get action.

My interest is to find a group of persons who are willing to discuss achieving occupational health through labor-management relations. East of the Mississippi River, the concept of a labor-management approach to this problem is far behind that of the West, or the West Coast.

In the United States there are safety organizations that believe in safety education, but there are not many organizations that believe in safety education and safety legislation as proper means of reaching their goals. When you involve labor-management relations along with education and legislation, we of the AFL-CIO are alone.

I would like to talk about labor-management relations within the periphery of my personal definition. One concept is that labor-management relations have a broad basis. The other is that they have a narrow basis. By "broad," I am submitting the idea that the legislative achievements of our 50 states require labor-management cooperation here and now.

Of all the groups of citizens who should be interested in this subject of occupational health, what better groups are there than labor and management? Yet, I ask you to check back in your memories; when have you seen labor and management jointly approach a state legislature and say, "We want this, and we want it for this reason and that reason"?

Talking with people in the 50 states, we get the impression that the legislative occupational health goals today are as far from realization as they were 10 or 15 years ago. I don't mean by that that we don't get lip service. We do. We have states that have six people who are professionals, qualified to administer the ideals expressed in some vague legislative language — six people, where one city in that state may have 200,000 workers. In other states, we don't even get lip service. Some states make no provision for occupational health services.

I would suggest that the current state of legislative progress in occupational health programs for workers has reached a point where you sometimes wonder whether you are living in the

sixth decade of the twentieth century or in the middle of the nineteenth century.

There is, to my knowledge, no definitive study made of the status of occupational health programs in any of the 50 states of the United States. For example, who knows how much money per worker has been appropriated in each of the 50 states to protect his health? How many of us know how many states actually employ professional personnel in occupational health? Or where they do employ some, how many do they have on their staffs in relation to the number of workers to be serviced? What is the total available supply of trained personnel for government use, or for private use, in terms of industrially trained physicians, registered nurses, practical nurses, industrial hygienists, and so forth? What salaries are being paid to professionals?

Are we just hoping that we are going to develop a group of professional people who will spend a major portion of their lives to be educated and to then work for salaries less than some private secretaries get after three years of education in a secretarial school? It does not make sense.

How many states actually require that occupational disease cases be reported at all? I can't give those answers, but I know some states where the rumor is that you can "get by."

I would suggest that in this area of occupational health legislation, the word "progress" does not belong in the lexicon of the people who are interested in it. There is a major city in Ohio, for instance, that has two professional people to administer the program of occupational health. However, they don't have a laboratory. This has been going on for some years.

It seems to me that what we need here is a joint labor-management approach to the legislators in every state. As responsible persons, labor and management could convince government that positive steps should be taken promptly to make occupational health a meaningful program in each state.

It is time for action. We don't need more conferences. We know what to do. Our problem is, who is going to do it?

I suggest that if we in the labor movement can't find employers who are willing to stand shoulder to shoulder with us, we go ahead ourselves. We have done it before and we can do it again.

In the narrow sense, labor-management relations involve our getting around the bargaining table at contract time and in our daily relations with our employers over grievances, and so forth. Can you bring up the subject of occupational health to any collective bargaining table? The answer is "no." You may bring it up to some bargaining tables, but when you bring it up to other bargaining tables you have a fight on your hands. That fight may be a strike.

We hear many things. I would like to use a mellifluous term, "attitudes." The psychologist has taken away the term, "we disagree." Now, it is "attitudes." We meet around some bargaining tables, and it is an attitude which says "No." "It is none of your business." "It is management's prerogative."

I am the first person in the world to believe in management's prerogative, and I am the first person in the world to believe that having established his rights, he follows up with his duties.

I hear it commonly stated that every employer is obliged by law to provide a safe and healthful working condition. That is not a fact. It is a fact in some of the 50 states. It is not a law in every state. Therefore, when we talk of management's prerogatives let's not becloud the issue by wrapping around it assumed universal responsibility. If the employer asserts that he has prerogatives, he is really accepting a burden. If management has had this prerogative all these years, why have we got these conditions in the plants and shops which are far from any decent standard of occupational health?

When rights become aged and unused, they have a tendency to shrivel up and disappear. That is precisely what has happened in many cases when we approach the bargaining table and say, "We want to introduce the concept that we have something to say about our bodies and our lives. We want it in writing in a contract, in a clause which gives us the right to raise questions and to request consideration."

You know, some of our people have, for years, gone along on the comfortable assumption that you don't need it in writing; that decency and common sense indicate the solution to problems of health and safety through mutual responsibilities.

Perhaps it is like marriage. Successful marriages do not get in the newspapers. Successful management-labor relations never get in the newspapers; what we hear of are the unsuccessful events. What we hear is that all too often, when a grievance is raised and causes some reaction unfavorable to our position, the employer has said, "Good. Take it to the grievance machinery." We go to the grievance machinery, and the arbitrator says, "Show me in what portion of this contract there is a basis for my ruling." We are trapped.

We can't cite line and verse which says we, as the collective bargaining agent, have a right to complain or raise an issue on health, because

the words "health" and "occupational safety" are not in the contract. We are going to remedy this, I assure you.

In our general approach, we think these problems are best resolved by cooperation. We don't look at the matter of safety and health as a source of friction. We think the employer is just as interested in our well-being as we are in our own lives and bodies. Therefore, we hope to approach this problem as one of mutual interest, to be resolved by joint action. That joint action around the bargaining table is a realistic approach to the problem of how we can reasonably resolve it, when, and how.

I speak of attitudes as problems. We have them, too. I don't know how or why it got started. We meet with people in our own ranks who say, "To heck with this safety stuff. The employer wants to keep his costs down." We challenge him. We say, "How silly can you get? Whether you live or die is very important, and don't be focusing your attention on the reduction of insurance rates for your employer."

I think the time has come to get a little action. I can agree that the major problem in the field of safety and occupational health is not with the large firms, firms of 500 or more employees. It is with the small firms. I have heard that so many times that it is now a cliché.

It is time to do something about this small employer problem. I suggest to you that the labor movement, structurally, is ideally organized to do something about it.

Let me illustrate my point. With full cognizance of the economic costs of occupational health to the small plant operator, let's consider the possible role of the building trades unions. They are essentially a local organization. They bargain on a local area basis. Why can't we have employers in the building and construction industry who meet to discuss wages and hours and other conditions, now meet with representatives of the local building trades council and discuss this problem of achieving safety and occupational health?

There are many small contractors in the building and construction trades industry. Why can't they meet about this? We are ready.

Now we can go into other industrial areas. Every major city has a city central labor organization. Indeed, it is through this central labor organization that campaigns are conducted to raise money for sick hearts, lungs, heads, ears and whatever purpose for which you pass a tin cup. Why can't we have representatives of a small industry in a particular city or area deal with the city central body concerning the problems of safety and occupational health?

I am sure that you immediately think of two well established methods. One is to have, in effect, a floating staff — a physician, perhaps, who sees a certain number of plants per day and gives a certain number of hours to each plant. On the other hand, you might think of the problem of setting up an industrial health clinic in the particular area, paid for by contributions of each employer.

People tell me that you know these ideas are all right, but there are certain prerogatives which organized medicine wishes to observe, and so forth, and you are asking for trouble. I am not asking for trouble. I am asking for results in the field of occupational medicine. If a plan is devised which will work, then all problems of groups are secondary to that. If the medical world has problems, wait until we get organization established to find how we are going to get occupational medicine to workers. If you have a problem after we get that settled, we will consider it. We cannot, unfortunately, get into the jurisdictional problems that one branch of medicine has with another, or this group of doctors has with that group. That is their problem.

We are going ahead. More and more, you see evidence of the trade union movement going ahead. I hope we do get into some practical area of labor-management relations at the legislative level and the bargaining table level. We have waited long enough.

I would prefer to go at these problems cooperatively, because we have a common problem which requires mutual answers, and on this we are prepared to cooperate.

The Personal

Medical World of

Ethel Browning

• T. S. SCOTT, M.D.
President, Association of
Industrial Medical Officers
Great Britain

Profiles in Occupational Health

Those whose only knowledge of Dr. Ethel Browning has been through her many medical and scientific works or whose only acquaintance with her has been to hear her lecture or deliver a paper in her precise, calm, authoritative manner might expect her private life to be lived in an atmosphere of regimented regularity and rectangular modernity. They would be astonished if they visited her in her home in the heart of London's West End.

Less than two minutes from one of the world's most glittering and fashionable shopping centres a quiet lane runs between the backs of the great commercial houses. You are in Bond Street one minute; the next you go through a wooden door in a high wall in South Molton Lane, London, W.1., and the twentieth century world is left behind — even the roar of London's traffic is dulled. You climb the outside iron staircase which leads to her penthouse flat, only two flights up but on the roof of a city that has no skyscrapers.

She will probably be at the head of the stairs to welcome you into her home where mellow old furniture and treasured antiques blend into the perfect decor of this old-world London apartment full of unexpected corners, low beams, irregular windows . . . and modern comfort.

Your hostess is no austere scientist or arid authoress. She is a friend who likes people for their own sake and makes them feel that she likes them. You will be at home here and you will know you are welcome. You are in the home of a gifted cook and you are going to eat something memorable if you stay for an English meal as she will surely insist you do. She is a fine needlewoman and my admiration of her work is confirmed by those who know and understand this feminine art. But the private world of Ethel Browning is not made up of these things although she is avidly interested in all domestic and social arts.

Music was her first love and would have been her greatest love had not an accident to her shoulder deflected her from becoming a professional pianist. Happily, no effects of the accident remain and she is in fact an accomplished musician.

You will want to talk medicine with her when you visit her in London and she will probably want to talk medicine with you. Try to find time to talk music with her and, if you can overcome her modest reluctance, to hear her play. Better still, find her in the private world she treasures most, her fifteenth century cottage in a quiet unspoiled village in the Midlands of England. It is here she keeps her best loved piano and it is to this peaceful haven that she escapes with her husband for vacations and for as many weekends as they can manage to get away from their busy world in London.

With all this you will marvel that she finds

time for the enormous amount of medical and literary work she does and for the careful recording and stylish writing in which she reports it. She likes work for its own sake but that does not mean that she is not selective or discriminating in what she does. Work does not tire this small, deceptively frail looking woman; it seems to stimulate her.

Ethel Browning struck the headlines of medical literature in 1937 when her book, *The Toxicity of Industrial Organic Solvents,* first appeared. In its latest edition it is still the standard textbook on the subject and it remains a lasting monument to her fame as doctor, scientist and writer. This medical classic is typical of the work of the authoress; clear, concise yet exhaustive and directly to the point. Did she not start on the very first page of her book with "benzene" which at that time posed the greatest problem as the most ubiquitous, insidious and toxic of all the solvents in general use?

The Medical Research Council wanted to take stock of existing knowledge of "the effect on health of the solvents commonly used in industry and to collect the information in one volume for reference." It was an inspired choice that led them to invite Ethel Browning to undertake this formidable task at a time when there were few textbooks, no collected literature on the subject, no signposts to indicate where the information was to be found and no precedents to show how it was to be done. It is difficult to realise that when her book appeared, and for some three years afterwards, she was a hospital pathologist and that she had no direct contact or personal experience of industrial medicine. Until then her career had been what she herself describes as chequered, and an outstanding example of nonplanning.

A fortunate sequence of events, some of them unfortunate in themselves, led to her writing this book. Denied a musical career she turned to medicine and we may be forgiven if we now rejoice at that seemingly unfortunate accident to her shoulder. She was graduated from Liverpool University with a first class honours degree. Within a short time her career was again jeopardised. During her first surgical internship she developed a streptococcal infection of the hand. This was the beginning of a septicaemia which culminated in pericarditis. It prevented her from working for several years except during short remissions when she was able to do some work in schools and infant welfare clinics. Finally she was confined to bed for nearly two years.

But the flame still burned. To while away the time she read history and she began to write. She found an unexpected aptitude for writing, especially historical articles, and a new career opened for her. For two years she worked as a journalist on a weekly literary paper.

Interesting and rewarding as this work was, it could not satisfy her. As her health recovered, medicine charmed her back and she became assistant pathologist at St. Pauls Hospital, London, where she stayed for seven years. Two important things happened to her there, two events which changed the course of her life and set the pattern of it for the rest of her days.

Dr. E. T. Ruston, now a pathologist, was house surgeon at St. Luke's in 1929. In 1931 she was married to this quiet, retiring, self-contained man whose wide knowledge on all kinds of subjects inside and outside medicine is quite extraordinary. For them the magic words of our childhood fairy stories have come true for they have indeed lived happily ever after.

The second event which was to shape the course of her life was the invitation to write the *Toxicity of Industrial Organic Solvents.* Those who do not know the history of Ethel Browning might think that the publication of this book marked the peak of her career in medicine. In fact it was but the beginning. Through it she met Dr. John Bridge, then His Majesty's Senior Medical Inspector of Factories, and her career in industrial medicine really began. In 1940, soon after the outbreak of war, he asked her to drop all her other work for six months to make clinical and blood examinations of all luminisers in Britain. This was urgent because of the reports from America of cases of aplastic anaemia and bone necrosis in girls using radioactive paint in New Jersey. She took on this assignment, which was to be for six months, and she stayed as a medical inspector of factories until she retired 18 years later.

Within a year, with characteristic energy and application, she had expanded her researches to workers in ionising radiations, lead compounds, benzene and many other solvents whose effect on the haematopoetic system was known or suspected to be toxic. Upwards of 2,000 luminisers have been examined by her at regular intervals; she had 500 of them at one time, all of whom she knew personally; about 1,500 workers in benzene and upwards of 3,000 workers exposed to a large variety of other solvents also came under her care.

It is difficult to imagine how she did all these haematological examinations, and, at the same time, conducted clinical examinations, inspected the jobs in the factory and advised about conditions of work. Her series of cases is unique in that she did all the blood counts herself so that her own interpretation has been applied to every blood sample and variations in technique

and interpretation by different technologists have been eliminated. There was no eight hour day or five day week in war-time Britain when stark necessity could brook no restrictions of time or limitations of effort, but the burning urge to work has carried her on the same wave of industriousness into the years of uneasy peace.

She went into factories all over England, Scotland and Wales and she studied the conditions of work of many thousands of people in dangerous occupations. She examined these people and from her own first hand knowledge correlated the chemical, haematological and pathological findings with the toxic agents to which they were exposed and the degree of contamination to which they were subjected.

Here, surely, is the essence of industrial medicine, the lesson we industrial physicians must learn and must teach. It is not given to us all to have her gift of clear original thinking, her faculty for discarding the nonessentials or her capacity for hard work, but we can remember and apply the essential principles she has demonstrated, that the practice of industrial medicine is a human problem and that while we in industry are primarily concerned with the preservation of the workman's health we have also to look beyond the individual human being to his environment. The work of Ethel Browning in the industrial life of her beloved country in the last 20 years has amply demonstrated how the doctor can serve industry. She has many reasons to look back with satisfaction on a busy life of service to her fellow man. Not the least source of satisfaction to her must be that not one luminiser in Britain fell victim to the effects of an occupation which earlier American experience had proved to be potentially as dangerous as any front line of battle.

Ethel Browning is at least four different persons. First, to those who have never met her or worked with her, she is the well-known name attached to a great many publications and standard works on her chosen subjects. To detail them all would make this tribute read like a catalogue. Her *Toxicity of Industrial Organic Solvents* and other books on which she is currently engaged will inevitably go into further editions and her name will be perpetuated, although others may edit them through the years. Second, to those who have worked with her, she is the person who has helped unsparingly with their problems; she is the person who has inspired and guided no one can tell how much research work or how many scientific articles to which her name has never been subscribed. She is the person on whom, for the best part of a generation, we have so often depended for guidance and counsel and to whom we have turned when we needed help. The person she is most proud to be, however, is the person whom the workers know. Many hundreds of them have been looked after by her continuously over the years and have had close personal contact with her. To them she is their beloved physician and friend.

But her life is not all work. There is the fourth Ethel Browning, the lady who met us at the top of the stairs. She enjoys the company of friends and their conversation. With her husband she travels abroad and motors to the country cottage when the spirit moves them. Music, art, the theatre fill what remains of her time not taken up by reading. She has her human weaknesses — or are they strengths? She will tell you that she detests all games, indoor and outdoor, is congenitally incapable of telling one card from another or hitting any round ball, has little sense of direction and even less of financial matters.

Dr. Browning retired from the Ministry of Labour at the end of 1957. Retirement to her means simply a new future and a fresh career. She is busier than ever. She is editor of a new work, *Industrial Toxic Agents*, which is now in preparation. This is a series of volumes each composed of a monograph written by an authority on the subject. They are to be published by Elsevier over the next year or two. In addition to the onerous main task of organising and editing the work of the several authors, she has written the volume on *Ionising Radiation*. It is typical of her drive and energy that this is the first section to be completed and it is now in the hands of the publishers. She is also in the course of writing another book, *The Toxicology of Metals*, which is to be published by Butterworth next year. She is a linguist with four languages at her command and she does translations and abstracts for several medical and industrial journals. She still keeps in close touch with industry, and is consultant on toxicological problems to several organisations.

Otium cum dignitate may be the goal to which many doctors who "scorn delights and live laborious days" look forward. Ethel Browning has certainly earned the dignity and the honour, but she eschews ease, and in her so-called retirement she still lives laboriously.

That is Dr. Ethel Browning. A tiny, tidy, quiet woman who has her full share of the feminine graces, untiring in her search for truth and honest in its declaration, fearless when the well-being of the worker is endangered. Friendly, approachable and sympathetic, she leads a full life and enjoys every minute of it. She likes people, she likes work, she loves life.

But the most important thing of all is that people like her.

Abstracts

Observations on Extradural Hemorrhage

REGINALD HOOPER in *British Journal of Surgery*, July, 1959

The current accepted mortality rate of extradural hemorrhage is about 50%, although lower rates have been reported. The author reviewed 83 cases encountered over 11 years with a mortality rate of about 20% and developed some interesting observations.

Extradural clot is uncommon during the first two years of life, the peak incidence in children being between six and 10 years and in adults during the third decade.

Extradural hematoma is generally seen as a complication of relatively mild to moderate blunt head injury of the closed type, resulting in a linear fracture of the temporoparietal area. The site of impact is of the utmost importance and every recipient of trauma to the temporoparietal region must be observed with care. Signs of external injury are usually present although on occasion the scalp must be shaved to reveal abrasions. In 70% of the author's cases the skin abrasion or hematoma directly overlay the extradural clot.

The extravasation originates from the middle meningeal vessels, from venous sinuses or diploic veins. Those patients with rapid clinical deterioration are usually bleeding from an arterial source. The general features of extradural hemorrhage are concerned with the effects of the immediate injury and the subsequent rapidly expanding lesion on the patient's level of consciousness. Twenty-five percent of the cases did not initially lose consciousness and in another 25% the loss of consciousness was transient. In another 20% the patient was unconscious for a time but regained consciousness before surgery. The classical picture of unconsciousness followed by the lucid interval and then deterioration was seen in 44% of cases. Transient improvement followed by deterioration was seen in 18%. Ten percent of the cases were operated before loss of consciousness intervened. Clinical features vary somewhat with the location of the lesion so that ipsilateral pupillary dilatation, pyramidal signs and weakness and deterioration of the conscious state will vary. Anterior fossa clots tend to be slower in formation while middle fossa hemorrhages require surgery within 12 hours in 64% of cases. Hematomas of the midbrain may produce decerebrate rigidity accompanied with hyperthermia. The mortality and morbidity of these lesions are high. Of 83 patients 32 also had associated intradural hemorrhage with a mortality rate of 48%.

Proper operative technique stresses exploring the site of impact or trauma using an adequate bony opening. The subdural space should always literated after the clot evacuation and this may be explored. The epidural space should be obbe facilitated by saline inection into the lumbar subarachnoid space. —JOHN M. JOHNSTON, M.D.

Common Sense in Manager Development

ROBERT S. COE, in *Advanced Management*, November, 1959

Management has long accepted controls on financial and technical matters. There is no logical reason why it should not accept a control on such a vital asset as talent.

The author mentions three elements essential to advancement: (1) The individual must possess the ability and the desire to assume an important post. (2) He must be identified as an employee capable of progressing in the company. (3) He must be provided with assignments that make increasing demands upon his talents.

Reviewer's comment: an individual so possessed — with health — means executive potential and personal success. —R. C. PAGE, M.D.

Business Ethics: Policy or Principle

A. M. SULLIVAN in *Dun's Review*, November, 1959

Today's business man hourly is called upon to make ethical judgments among employees, customers, stockholders and the public. Men of strong moral principles make many ethical decisions instinctively. A really sensitive conscience is apt to confuse scruples with principles and give the other fellow the benefit of any doubt.

Absolute ethics includes the disciplines of the spirit. Relative ethics is easily amended by circumstances. In the 19th and 20th Century relative ethical standards have advanced. But ethics needs the indignation of the spirit to give added impact to its force in behalf of the rights, privileges and dignity of man.

Behind most ethical offences are the half-truth, the mental reservation, the selective reasoning which weaken the sense of verbal agreement, the understanding of a responsibility.

In any vast organization of people the bewildering impact of numbers makes it difficult to maintain a sharp ethical focus on the rights of the individual. A danger of group decisions is that the broad impersonal judgment lays a heavy hand on the just and the unjust, the

skilled and unskilled, the energetic and lackadaisical.

Industry and labor have moved forward in their ethical attitudes, but there is still plenty of room for improvement as many doctors in industry can testify. —R. C. PAGE, M.D.

Books

Pain and Itch: Nervous Mechanisms

(Boston: Little, Brown and Company, 1959) 120 pp., illustrated, $2.50

The Ciba Foundation has started a new series of book publications, the "Study Groups." In this first one devoted to "Pain and Itch," the partnership is warranted since an itch may be but a minimal pain. Always itching has been the subject of much levity and banter. In this text itching is no light matter to be passed over with just a little scratching. Itching is treated pontifically even though the authors rely upon the term "itch" at nearly all times rather than its more elegant synonym "pruritis."

It would be heartening if all itching might be attributed to a release of histamine. Much itching is produced in that manner, but apparently not all since the tell-tale mark of histamine, inflammation, is not always present. Then come the itch inducers, the proteases and the proteolytic enzymes. The authors fail to mention that much pruritis is wholly psychogenic. It is time to ponder whether, in emotional itching, the action of histamine or enzymes still is invoked or instead occurs in the absence of any such chemical background.

From the particular chapter devoted to itch (Arthur and Shelly) the introductory language is poignant: "Itching is a readily definable band of the sensory spectrum inasmuch as it leads to a purposive scratch reflex. If we may equate itching and scratching, itching is as universal as pain. Examples of responses to relieve an itch are seen in such diverse creatures as birds, monkeys and whales — this last has been observed 'scratching' its hide on ocean reefs. In rats, 'mad itch' occurs as a reproducible viral disease. However, itching is not a dominant sensation. It may fade before pain, cold, heat or at times even touch. It is not readily produced by physiological means — tissue damage is a frequent concomitant. It arises only from the outermost fringe of the skin, in contrast with pain, which may arise from many parts of the body. It cannot be unequivocally identified in any animal laboratory subject — scratching indicates at best only a certain level of activity. Even in man it has been necessary to conduct certain experiments only on highly trained and experienced observers. Itching is here defined as that which arouses the desire to scratch or rub the test site."

The other chapters that constitute this booklet deal with the significance of the peripheral anatomical arrangements of the nerves which serve pain and itch, the peripheral nervous mechanism of pain, the sensory functions of the nonmyelinated afferent nerve fibres from the skin, a single unit analysis of cutaneous receptors with C afferent fibres, some patterns of activity in the central sensory pathway with possible relevance to the problem of pain, the thalmic and cortical reception of afferent impulses from the tongue, the peripheral mechanism of itch in man, studies on the mechanism of pain in trigeminal neuralgia.

Manual of Industrial Radiation Protection; Part II Model Code of Safety Regulations (Ionizing Radiations)

(Geneva: International Labor Office, 1959) $.75

People concerned with radiation hazard control are today divided into three camps: those who are terrified of too few regulations, those who are terrified of too many regulations, and those who are simply terrified. This manual, by rendering unto "the responsible person" those things which are the responsible person's should go a long way toward relieving terror in all three camps, and this in only 51 pages.

The Manual is intended as "a guide which governments and industry are at liberty to use as they think fit in framing or revising their own safety regulations." It deliberately excludes consideration of mining, treating, or enriching natural radioactive materials, nuclear reactors, nuclear fuel reprocessing and accelerators of heavy or very high energy particles.

The manual under review leaves to the judgment of "the competent person" many procedures specified in detail by other codes. All codes call for a competent person; this code will assist and stimulate the competent person in the exercise of judgment and common sense Conversely, it will not lead the incompetent person to believe he is able to make decisions in areas where he has no training.

No manual today can avoid touching on points where there are differences of opinion. This is true, even though all codes and manuals start with the same basic facts and assumptions, and indeed are prepared by committees with inter-

locking memberships. It is proper, therefore, to point out a few contentious points in the manual.

The manual incorporates the recommendation that the maximum accumulated dose in rem to the gonads, blood-forming organs and lenses of the eyes of radiation workers, should not exceed 5 (N-18), where N is the age in years. As the title implies, the manual is not concerned with public radiation exposure. Instead, it recommends a maximum exposure of 1.5 rem per year for workers in the vicinity of controlled (i.e. radiation) areas, or who enter controlled areas occasionally. In effect, this introduces a third class of citizen between the radiation worker, with a nominal maximum of 5.0 rem per year, and members of the public with a maximum of 0.5 rem per year.

Any worker who may receive more than 1.5 rem per year is regarded as a radiation worker and is subject to personal monitoring and to a medical examination at least every year, and preferably every six months. The medical examination is to include examination of the skin for dermatitis, cancer and finger-ridge detail.

It will strike some as out of keeping with the rest of the manual, that a requirement for routine inspection of respiratory protective equipment is omitted. —G. HOYT WHIPPLE

Dictionary of Economic Plants

J. C. TH. UPHOF and H. R. ENGELMANN (New York: Hafner Publishing Company, 1959) 400 pp., $9.75

Up to a generation or two ago medicine was burdened by voluminous claims of medical virtues in hundreds of plants, flowers and fruits. Sassafras serves as a suitable example. A few of these "old wives" remedies have yielded magnificent therapeutic products, with digitalis, penicillin and rauwolfia being unchallengeable instances. While still other splendid disclosures based on "old wives" cures are a prospect, the majority have been discarded as of trifling importance. Nowadays these plants are assuming a different usefulness — importance in the economies of the nations. A fetching example resides in the tamarind, an oriental fruit. Two centuries ago this fruit was cherished as a preventive and curative for scurvy. In truth it did possess antiscorbutic properties. Only about 10 years ago it developed that the seed of tamarinds provide a mucilaginous substance highly serviceable in the sizing and stiffening of some textiles, and for some purposes this stiffener may be superior to all others. This discovery was handicapped by the subsequent disclosure that this useful agent is quite capable of damaging those who manipulate it. Asthma and possibly dermatitis proved to be a characteristic occupational affection of these industrial workers.

Scores of these plants, finding new economic application, are proving to be allergens, irritants and systemic poisons. It may be doubted that the author at any time had occupational health in mind as he assembled botanical data on some 6,000 economic plants. This is no book for the daily use of all occupational health workers. But for the perplexed industrial toxicologist, the confused industrial hygienist, the troubled industrial nurse, confronted with something strange and baffling about the health of workers growing out of plants, woods, seed or vegetable chemical extracts, this book may furnish the starting point in acquiring wisdom as to the whys and whences of the difficulty.

Color Atlas and Management of Vascular Disease

W. T. FOLEY and I. S. WRIGHT (New York: Appleton-Century-Crofts, 1959) 170 pp., $18.00

The title of this book may deceive many. It is not merely an atlas of vascular diseases with some illustrations in color. Instead it is an atlas of diagnosis and prognosis in vascular diseases extensively built around the color of the tissues involved. High fidelity in color photography and in the reproduction of color transparencies marks this monograph as unique. This is the first time that color has been made the characteristic feature of a text on vascular diseases. Not all the illustrations are in color, but 192 color photographs present the lesions in various stages.

These photographs demonstrate the following forms of vascular disease: Arterial Diseases, Venous Diseases, Lymphedema, Vasospasm and Diseases in Which it Plays a Role, Aneurysm, Diseases of the Small Vessels, Blood Vessel Tumors.

The subheadings for these major captions are numerous and impressive but only one listing here is introduced as being exemplary of all. Diseases of the Small Vessels: Infectious Purpura, Toxic Purpura, Purpura Due to Avitaminosis, Purpura Secondary to Increased Venous Pressure, Menstrual Purpura, Senile Purpura, Idiopathic Purpura, Allergic Purpura, Urticaria and Angioneurotic Edema, Sensitivity to Physical Agents, Hematogenic Purpura, Deficiency of Blood Clotting Factors, Local Inflammation, Anaphylactic Shock, Traumatic Shock, Burns, Frostbite, Hypertensive Ischemic Ulcers.

Readily it may be forecast that this is destined to become a collector's item. So destined, the copy in hand duly is hoarded; but hoarding should not be at the expense of the day by day contribution that this book is capable of making.

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VOLUME XXIX

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Cranberries and Cancer

Some millions of cranberries together with their millionth part of a whiff of aminotriazole now safely have been interred. Beyond peradventure these particular ones will induce no cancer. Few persons are even suspicious that a spate of cancers will arise from this form of food contamination. Yet it may be believed that some few cancers that currently may be detected will be laid before the gateway of the cranberry bogs with loud demands for justice in terms of dollars. The establishment of these claims in the courts may and should prove difficult.

In the midst of furor, fury, fuss and feathers no word has been encountered about workers who could have been exposed a thousandfold to aminotriazole. These among others are, the makers of that chemical, the bog treaters, the cranberry gatherers, sorters, packers and canners. No such misadventure may be anticipated. The total situation provides superb opportunity to differentiate between an occupational and a nonoccupational affection. Should some consumer of contaminated cranberries in fact prove to have acquired a cancer from aminotriazole contamination, by no stretching of the facts could this be labeled an occupational disease. Otherwise, should some one or more of the workers mentioned develop such a cancer from such a cause, then an occupational disease clearly would exist, duly arising from exposure in the course of work.

It probably is a feckless matter to contemplate any measures of protection for these workers. For the time being any prospect of using aminotriazole as a pesticide for growing food products is as dead as the Sphynx. It is not known that the producers of that chemical will discontinue its manufacture. But at this writing it is a safe conjecture that orders for high tonnage are not pouring in day by day.

Refrigeration in Carbon Monoxide Intoxication

For victims of carbon monoxide intoxication in extremis a new treatment has been devised and successfully conducted. This development has been accorded wide lay publicity. The salient features of this procedure and this experience as presented in a scientific journal, *The New England Journal of Medicine*, 261, 854, October 22, 1959, are:

"Clinical hypothermia has been used recently,

with success, in a wide variety of conditions having in common central-nervous-system hypoxia and edema. Reports have appeared in the literature regarding the protection of laboratory animals from carbon monoxide intoxication by the use of deep hypothermia. Encouraged by these reports, we made use of hypothermia in the treatment of severe carbon monoxide poisoning in a young man whose prognosis appeared hopeless.

"The pathologic changes in the body resulting from carbon monoxide intoxication are due to hypoxia. Carbon monoxide is not toxic for the cells. Human hemoglobin has an affinity for carbon monoxide two hundred times that for oxygen. The remaining oxyhemoglobin yields its oxygen to tissues only when oxygen tensions are far below normal. The cells most sensitive to oxygen lack — the brain and heart — are most severely damaged. This hypoxia leads to disruption of cellular function, marked cerebral swelling and, when long continued, tissue death.

"The pathological findings in the brain of patients dead of carbon monoxide poisoning are characteristically those of cellular swelling and marked interstitial edema. Petechial hemorrhages are often seen in the lenticulostriate system and midbrain. The effects of cerebral edema have been studied by Scheinker, who found midbrain herniation through the tentorium cerebelli, with compression of the midbrain. This leads to perivenous congestion, petechial hemorrhage, and further cerebral edema. If not checked, this vicious circle may result in the death of the patient, even though the initiating hypoxia has been relieved.

"The use of hypothermia in cerebral hypoxic states is now commonplace in this country and has a good physiologic basis. Wilson has listed conditions likely to respond to hypothermia as those associated with reversible hypoxia such as increased intracranial pressure, cerebral edema, conditions associated with vascular spasm and interruption of major cerebral vessels. The effects of carbon monoxide intoxication certainly include the first two conditions.

"There are many techniques for inducing hypothermia. The one we use is quite simple and effective and requires little equipment. Ice should not be allowed to come into contact with the skin. The use of a thin plastic sheet is most satisfactory. Ice cubes are used, and the amount of surface area cooled can be varied depending on the extent to which the temperature is to be reduced. Most commonly, this will be 30 to 32° C. (88 to 92° F.) Shivering, which increases the metabolic rate, should be prevented. It can be controlled with chlorpromazine, 25 mg intramuscularly as required. This drug inhibits muscle spasm and shivering by a peripheral curarizing effect and facilitates cooling by vasodilatation.

"The patient should be allowed to rewarm spontaneously over eight to 12 hours. Chlorpromazine is withheld, the body's thermostatic mechanism being allowed to assume control. Rapid rewarming may result in heart irregularities and sometimes in temperature overshoots. Cardiac disturbances, specifically ventricular fibrillation, should not be a problem, provided the temperature is held above 30° C., the heart is not manipulated and there is adequate oxygenation, pulmonary ventilation and electrolyte balance.

"The duration of hypothermia varies, but usually is not more than 72 hours."

At this time this form of therapy is neither espoused nor rejected. A wider application will determine its place in carbon monoxide intoxication therapy. Pending that time there is warrant to raise questions as to the desirability of refrigeration in carbon monoxide poisoning of a severity short of "in extremis."

In milder intoxication in the absence of unconsciousness there is no prospect of ensuing sequelae on an organic basis although psychogenic disturbances on a delayed basis are frequent and disturbing. When coma is deep and prolonged a low percentage of the victims later develop all manner of mild or severe sequelae involving any tissue and any system. These are organic in nature and derive from the hypoxia at the time of the acute episode. This is not to say that there exists a chronic form of carbon monoxide poisoning. That state is not known to exist although chronic exposure is commonplace.

If refrigeration be a virtue in cases in extremis may it not also be of value in lesser but still severe incidents in which coma is definite and prolonged? To reach any sound appraisal on this point will prove most difficult. Only a few victims develop sequelae. The likelihood of sequelae may not be measured or anticipated. Refrigeration would have to eliminate substantially all sequelae in a substantial number of cases before this might move from the territory of opinion to the territory of evidence.

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(1) Brownlee, George: A Comparison of Antiphretic Activity and Toxicity of Phenacetin and Aspirin, Quar. J. of Pharmacy and Pharmacology, 10:609-620.

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COMMENT AND OPINION

One Step Ahead

A secretary outpaces her boss by 0.2 miles a day, according to a recent study. The average executive walks 3.7 miles daily, while his Gal Friday hoofs 3.9 miles.

—*Industrial Relations News*, December 26, 1959.

Troubled on Job

"If you want to be helpful to an emotionally disturbed person, probably the most important single factor is your attitude toward him. If you feel warm, friendly, sympathetic, the chances are pretty good that you may be of at least some help. If you feel annoyed, disgusted, irritated and resentful, it is unlikely you will be able to do him any good." This advice to people who supervise other people is offered in a new pamphlet, *Troubled People on the Job*, prepared by the Committee on Occupational Psychiatry of the American Psychiatric Association. It is intended for supervisory personnel in almost every setting.

The pamphlet's foreword, by William Malamud, M.D., President, American Psychiatric Association, states, "We do not know exactly how many industrial employees suffer from emotional disorders, but we do know that industry is seriously alarmed at the high percentage of accidents, absenteeism, illness, inadequate work, and friction between workers and supervisors resulting in loss of productivity. To the psychiatrist, these are symptoms of personality disturbances. Psychiatry does not offer any panacea for all of these ills, but it can share with industry its knowledge of reducing human problems through helping people to understand themselves and others."

Many of the problems encountered by supervisors in industry today are actually problems of people — alcoholism, labor turnover, aggravated occu-

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Industrial Hygienist: M.D., Ann Arbor; MPH, Johns Hopkins; sevl yrs, priv pract; 10 yrs, Publ Hlth surveyor, rsrch assoc; past yr, priv consultant basis in which field he has no further interest; prefs NY State; consider others; lic, Mich, Fla, Calif; DNB; immediately available.

Industrial Surgeon: 3 yrs, surg residency; 2 yrs, chief surg, USAF; 1½ yrs, phy & surg, US Army hsp; presently Med Dir, div of lge corp; seeks assn w/clinic or surg limiting practice to Indus Surg; prefers So, SW, SE; Age 34.

Staff Physician: MPH, Univ of Mich; M.D., Colo Med Schl; 1 yr, post-grad, Indus Hlth, Harvard; 6 yrs, Indus phys, important oil co; seeks full-time indust hlth wk—direct active med, Indus hygiene & safety progm; Kansas City area; Age 36.

Staff Physician: A.B., Northern Univ; three yrs, private, genl practice; prefers Indus position; West or Northwest; Age 33.

Staff Physician: 2 yrs, Director, Blood & Plasma entr; three-and-one-half yrs private genl practice; 3 yrs Med Officer, USAF; seeks Indus Med in SE, SW or California.

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pational illness, the shirker, the chronic complainer, the otherwise good worker who cannot get along with other people, etc. An element found more or less consistently in all of these kinds of behavior is "emotional disturbance." The intent of this pamphlet is to present a point of view about emotional disturbance which may be helpful to supervisors in handling difficult employees and situations.

Emphasizing that maladjusted people do not choose to be emotionally disturbed — and frequently want to change but do not know how — the pamphlet outlines some techniques for helping them. It also provides some guidance in recognizing signals of severe disturbance and tells where to go for expert guidance.

The A.P.A. Committee on Occupational Psychiatry consists of the following psychiatrists: Ralph T. Collins, M.D. (Chairman), Alan A. McLean, M.D., Richard Proctor, M.D., W. Donald Ross, M.D., Graham C. Taylor, M.D., and Louis Tureen, M.D. The booklet is available at 50 cents per copy from the Mental Health Materials Center, 104 East 25th St., New York 10.

CAMP TRADE MARK *lumbosacral supports*

For Conservative Treatment of Low Back Conditions

A perfect solution to the style demands of the patient and the support demands of the physician. This girdle features a double hook and eye adjustment. It extends 4" above the waistline to cover the lumbosacral region. Made of white cable net with a fabric front and back panel.

A support your male patient will wear. Made of natural, controlled-stretch elastic with two double elastic pull bands hooking into front tabs. Zipper front closing. Supplied with 4 shaped steels for more back support — extends 5" above waist in back, only 2½" in front.

In situations of low back pain or in cases of postoperative therapy, Camp's lumbosacral supports have a long history of providing protection and relief. Designed to immobilize, firm and rest the back from the dorsolumbar junction to an anchor point well down over the sacrum. These supports can be reinforced by steel uprights, the Camp spinal brace, or pads. Your authorized Camp dealer has many models (side lacing, back-lacing, no lacing) to select from in matching your specific needs. And basic types are made in a variety of fabrics to match the whims of your patient.

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Noncompensatory Heart

A Yale medical staff member has warned that a proposed law, making hypertension and heart disease compensable ailments under workmen's compensation, "would actually react to the disadvantage of such persons."

J. Wister Meigs, M.D., told a Massachusetts State Legislature Council subcommittee at Boston that such legislation would be unwise.

Most persons who get these ailments would then be "assumed" to have contracted them as an outgrowth of their employment, under such a law, he pointed out.

Since employers pay into the fund, Dr. Meigs declared, they would thus hesitate to hire — or retain — anyone with a cardiac condition or hypertension.

"Since these are common ailments, and since medical authorities recommend regular work for people with them, I would like to see the present compensation law continued — to encourage employment of people with these conditions," Dr. Meigs told the lawmakers.

Massachusetts has a law which permits broad compensation coverage for workers who get these ailments — a measure which he said imposes a heavy financial load on industry. Industry there is most reluctant to hire anyone with any degree of hypertension or heart disease, he reported, for fear of incurring compensation expenses.

Dr. Meigs, Assistant Professor of Occupational Medicine at Yale, observed that cardiac troubles are caused by many conditions, some entirely unrelated to employment con-

ditions. But he felt the proposed legislation would foster the assumption that the ailment is an outgrowth of employment.

The physician also charged that such legislation would provide "a special financial remedy" for a special group of people with "two very common conditions."

Staph Absenteeism

Many companies have reported a serious increase in absenteeism due to the emergence of new types of disease germs.

The greatest danger of infection from antibiotic resistant germs — some of the most virulent of which are known as "staph" (Staphylococcus) — seems to be by contact with surfaces that have been contaminated by a carrier. These include washroom fixtures, bowls, tiles, mats, towels, etc., all of which are prolific areas of infection.

Many executives responsible for maintenance are discovering that by keeping these areas sanitary they greatly reduce the danger of their employees becoming infected.

Vacation for Coffee

Employees get an extra 15-day vacation in the form of a coffee break. A survey reveals two daily 15 minute breaks add up to 15 days and five hours yearly. Some 77% of all American business firms give coffee breaks. Of these, about 40% allow 10 minutes, 43% allow 15 minutes, and 6% allow 20 minutes. Nearly 50% give a break in the morning, 12% provide afternoon breaks, and 38% allow two breaks daily.

—*Industrial Relations News*, Dec. 26, 1959.

A Nip and A Nap

More than 700 British executives of shipping lines, oil companies, banks, chemical concerns, public utilities and other businesses recently had nine leading physicians prescribe for them, more or less en masse.

Among subjects brought up in the first conference of its kind in Britain were overwork and fatigue, stress and responsibility, overweight and diet, high blood pressure and coronary thrombosis. Probably the least painful part of the "prescription" had to do with the relaxation these executives should get.

In addition to annual four-week vacations, they were urged to take short holidays at frequent intervals. The main vacation was prescribed with the comment that even the most well-balanced individual requires several days, even a week, to unwind and begin to benefit from relaxation.

Another recommendation was for the high blood pressure victim to indulge in a glass of sherry, a cocktail or a whiskey and soda before dinner or as a nightcap.

This is advice that closely parallels the recommendation of Boston's famed surgeon, the late Dr. Sara M. Jordan, known as "the patron saint of the ulcer-afflicted." Her prescription for businessmen over 50 was "a nip and a nap," or "a short nap after lunch and a relaxing highball before dinner."

—From *Latrobe* (Pa.) *Bulletin*, Dec. 18, 1959

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new for total management of itching,[1,2] inflamed,[3,4] infected[5,6] skin lesions

Dermatitis repens
7 weeks duration

Cleared in 5 days

Mycolog ointment

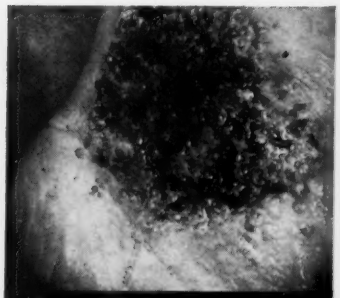
Kenalog, Spectrocin and Mycostatin in Plastibase

antipruritic/anti-inflammatory/antibacterial/antifungal

Mycolog Ointment – containing the new superior topical corticoid Kenalog – reduces inflammation,[3,4] relieves itching,[1,2] and combats or prevents bacterial, monilial and mixed infections.[5-7] It is extremely well tolerated, and assures a rapid, decisive clinical response for most infected dermatoses.

> **"Thirty-one of 38 patients . . . obtained excellent or good control of dermatological lesions . . . [Mycolog] was highly effective, particularly in the management of mixed infections. Several recalcitrant eruptions which had not responded to previous therapy were remarkably responsive to the daily application of this preparation over periods of 2 to 3 weeks."[5]**

For total management of itching, inflamed, infected skin lesions, Mycolog contains triamcinolone acetonide, an outstanding new topical corticoid for prompt, effective relief of itching, burning and inflammation[1-4] – neomycin and gramicidin for powerful antibacterial action[7] – and nystatin for treating or preventing Candida (Monilia) albicans infections.[8,9]



Infectious eczematoid dermatitis of ankle–5 years duration

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Application: Apply 2 to 3 times daily. Supply: 5 Gm. and 15 Gm. tubes. Each gram supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base, 0.25 mg. gramicidin, and 100,000 units nystatin in PLASTIBASE.

References: 1. Sheimire, J.B., Jr.: Monographs on Therapy 3:164 (Nov.) 1958. • 2. Nix, T.E., Jr., and Derbes, V.J.: Monographs on Therapy 3:123 (Nov.) 1958. • 3. Robinson, R.C.V.: Bull. School of Med., U. Maryland 43:54 (July) 1958. • 4. Sternberg, T.H.; Newcomer, V.D., and Reisner, R.M.: Monographs on Therapy 3:115 (Nov.) 1958. • 5. Clark, R.F., and Hallett, J.J.: Monographs on Therapy, 3:153 (Nov.) 1958. • 6. Smith J.G., Jr.; Zawisza, R.J., and Blank, H.: Monographs on Therapy, 3:111 (Nov.) 1958. • 7. Monographs on Therapy, 3:137 (Nov.) 1958. • 8. Howell, C.M., Jr.: North Carolina M.J. 19:449 (Oct.) 1958. • 9. Bereston, E.S.: South. M.J. 50:547 (April) 1957.

And whatever the topical corticoid need, a suitable Squibb formulation is available—Kenalog-S Lotion—7½ cc. plastic squeeze bottles. Each cc. supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base and 0.25 mg. gramicidin. Kenalog Cream, 0.1%—5 Gm. and 15 Gm. tubes. Kenalog Lotion, 0.1%—15 cc. plastic squeeze bottles. Kenalog Ointment, 0.1%—5 Gm. and 15 Gm. tubes.

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Tessalon, a nonnarcotic, is 2½ times as effective as codeine.* Tessalon acts both at the sensory receptors in the chest *and* the cough centers of the medulla. Furthermore, it controls cough frequency without interfering with productivity or expectoration; sputum is usually thinner, easier to raise. Tessalon acts within 15 or 20 minutes, controls cough for 3 to 8 hours. There are no major side effects. Whether for acute or chronic cough, whether for short- or long-term therapy, Tessalon has a remarkable margin of safety. Perles insure built-in, precise dosage—no sugar or sodium to interfere with diet, no problem of nausea. Tessalon perles are easy to swallow, easy to carry in pocket or purse.

SUPPLIED: Tessalon *Perles*, 100 mg. (yellow); bottles of 100. Tessalon *Pediatric Perles* (for children under 10), 50 mg. (red); bottles of 100. *Also available* (for use when oral administration of Tessalon is precluded): *Ampuls*, 1 ml. (5 mg.); cartons of 5.

*Shane, S. J., Krzyski, T. K., and Copp, S. E.: Canad. M.A.J. 77:600 (Sept. 15) 1957.

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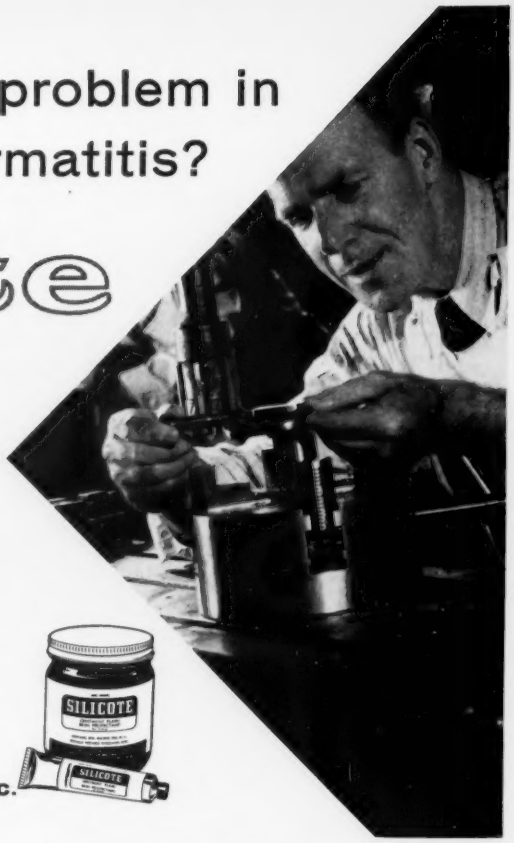
do you have a problem in industrial dermatitis?

Silicote

SILICONE SKIN PROTECTANT



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IN TREATMENT

of contact dermatoses, Silicote clears up many cases not responsive to other therapy.

Silicote is the only preparation containing 30% silicones (dimethicone) in specially prepared petrolatum base. Silicote is non-occlusive.

May we work with you in your particular problem? Send for clinical supply.

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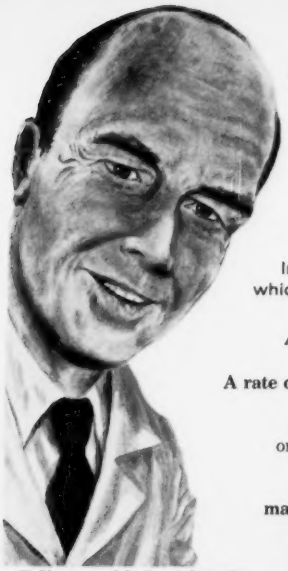

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A constant liter flow which does not diminish with lower tank pressure.

A rate of flow you set, from 3 to 12 liters per minute, until larger oxygen supplies become available.

A highly portable emergency unit for office or automobile with features formerly found only in expensive, non-portable units.

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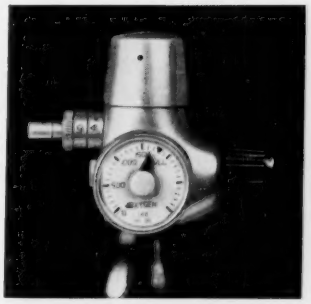
The new Oxy-Swig valve allows you to set the flow — from three to twelve liters per minute — which remains constant. Cylinder contains 56 liters. Each kit equipped with an adaptor for quick, easy refill at any oxygen outlet.



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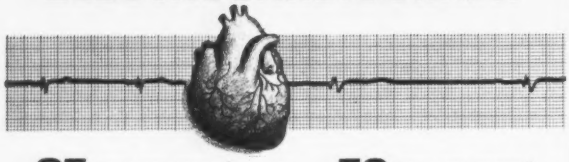

25 mm. per second or **50** mm. per second

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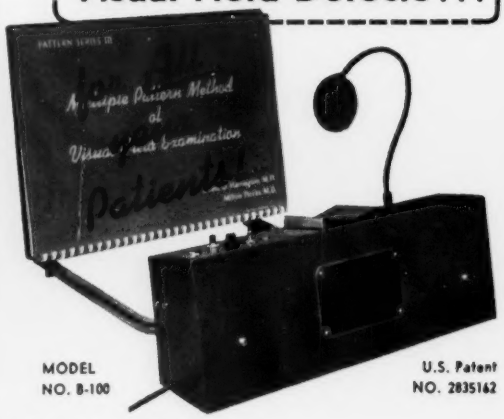

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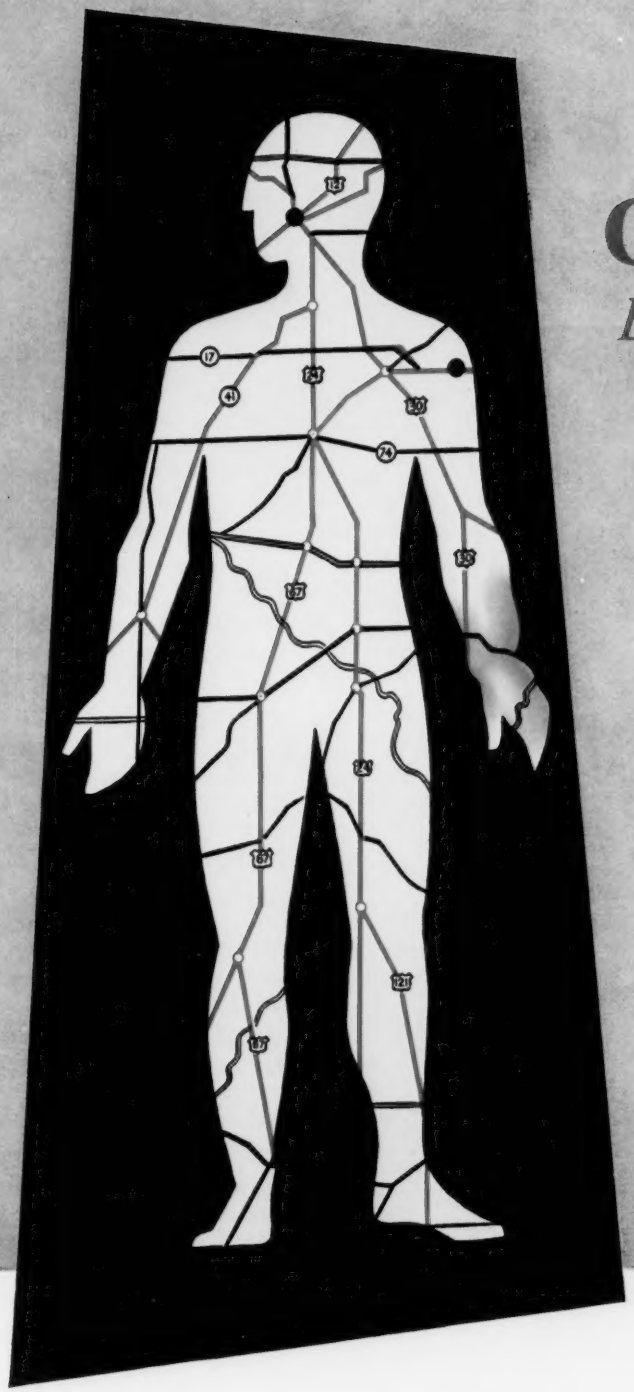

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in industrial accidents controls inflammation, swelling and pain

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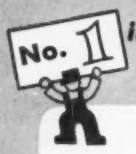

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I showed them how to save money by putting the soap at the workers' fingertips!

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"After showing our presentation OPERATION PINPOINT to an eastern rubber company, I made a survey of their skin hygiene conditions and wash-up practices. They had a real (and costly) problem in removal of butyl vulcanizing cement from hands . . . especially after the cement had dried. Gloves couldn't be worn for this work and protective hand creams proved only partially effective. Consequently, workers made many extra trips to the washroom . . . and this was costing the company plenty in lost production time. I suggested that they simply *bring the soap to the workers* by using our SBS-30 Waterless Cleanser. It easily removes adhesives and tough soils, discourages the use of harmful solvents . . . eliminates all those extra, time-consuming trips to the washroom."

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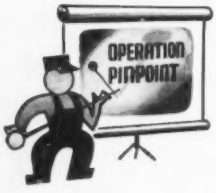

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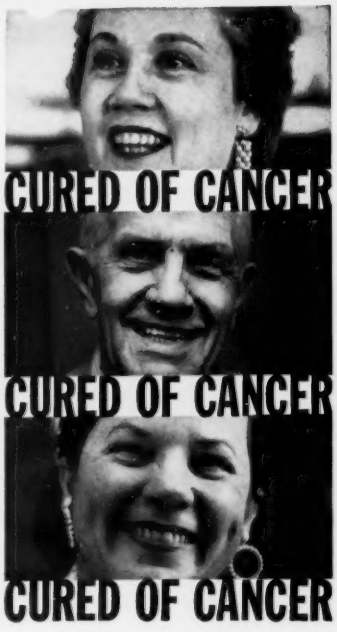

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They're free for use in your office, your club, at your PTA meeting, your church socials, your community center. They're all designed to alert you, your family and your friends to facts about cancer which can mean the difference between life and death.

Call or write the Unit of the American Cancer Society nearest you. It's stocked with ammunition that could save *your* life.

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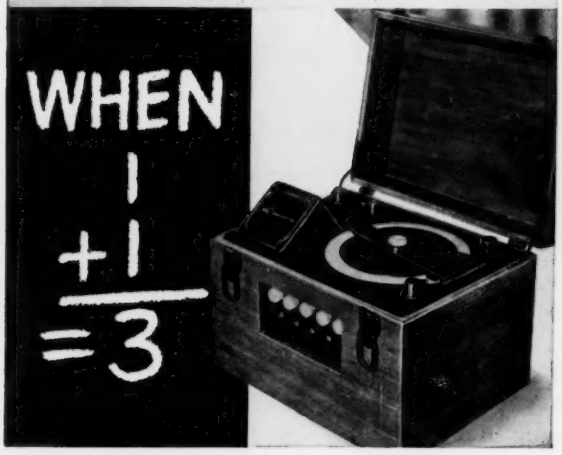
Cambridge

AUDIO-VISUAL *heart sound* RECORDER



Mathematically, of course, 1 plus 1 does not equal three, but the Cambridge Audio-Visual Heart Sound Recorder makes a seeming paradox — true! The simultaneous, instantaneous viewing and hearing of the heart sounds give more than the simple sum of the two . . . they provide the plus factor!

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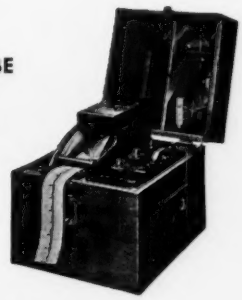

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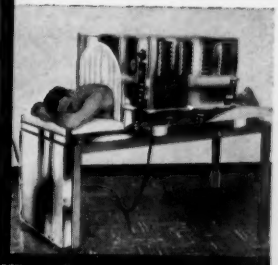

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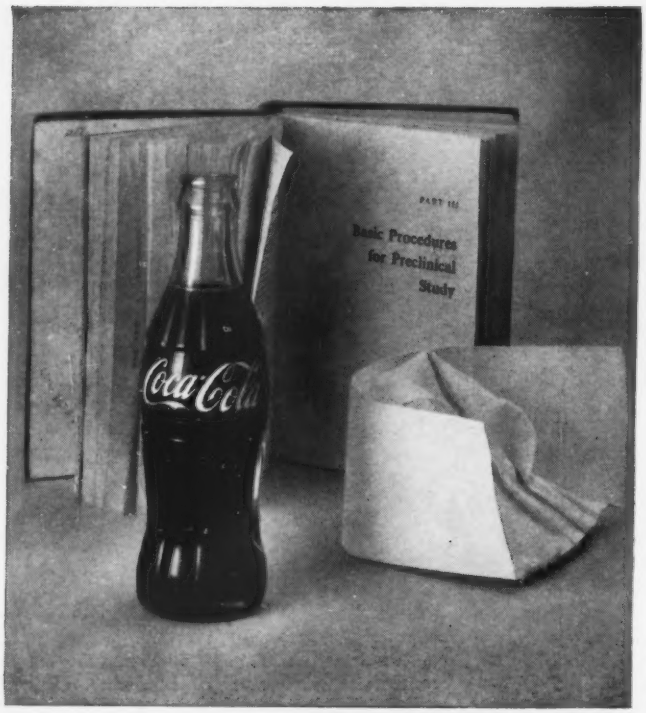

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1. Gordon, E. E. and Haas, A.: Industrial Medicine & Surgery 28:217, 1959.

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